A behavioural case study: Interventions for digital pension contributions

People's Pension Trust Ghana

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Executive summary

Cenfri, as a co-host of insight2impact, worked with People's Pension Trust (PPT) Ghana on an end-to-end behavioural design project in order to increase the number of customers who make their pension contributions through digital channels, specifically through direct debit orders of their mobile money accounts.

To accomplish this, we took PPT through the four phases of behavioural design: define, diagnose, design and deploy. In the define phase we sought to clearly define the behavioural challenge; in the diagnose phase we set up and execute the research activities; in the third phase we then designed interventions that could be used as remedies to the challenge and finally, in the deploy stage, we tested the prioritized interventions in the field.

In this process we were able to test and recommend two interventions that PPT should upscale to all customers in all markets.

We also had four major learnings about conducting behavioural design projects:

1. Little things can make a big difference
2. The importance of testing
3. Behavioural science is not a silver bullet
4. The importance if measuring the right thing

Introduction

Traditionally, informal sectors have been difficult to reach with financial services. Financial service providers (FSPs) have struggled to serve informal individuals through traditional channels, as these individuals are often located in hard-to-reach areas, have low literacy levels and operate in distractive environments. As many as 66% of individuals in sub-Saharan Africa (SSA) lack access to formal bank accounts (World Bank, 2018).

Established in 2016, People's Pension Trust Ghana Limited (PPT) provides various pension products to customers in Ghana. The company has a strong focus on the informal sector, with a large portion of its customers based in the marketplaces in Accra, Ghana. However, it currently relies on sales agents and in-person contact to reach these customers and has been working to switch this behaviour to digital contributions.

Cenfri, as a co-host of insight2impact, worked with PPT on an end-to-end behavioural design project in order to increase the number of customers who make their pension contributions through digital channels. To accomplish this, we took PPT through the four phases of behavioural design.

This report discusses these four phases and presents the outcomes for PPT as a practical example of how these may be completed.

Phase 1: Define

Phase 2: Diagnose

Phase 3: Design

Phase 4: Deploy

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Phase 1: Define

The purpose of Phase 1 is to narrowly and clearly define the behavioural challenge so that the project objectives correspond with the relevant business and stakeholders' objectives.

This is accomplished through three key steps:

1. Reaching consensus on the behavioural objective for the project, the target population and the criteria against which you measure success.
2. Capturing and sharing assumptions on what key stakeholders think the root cause of the behaviour may be.
3. Developing a user journey map that describes how the target population reaches the desired behaviour and where they may go off-course in doing so.

Output:

A clearly defined behavioural objective that includes the desired behaviour, the target population and the measure of success or failure

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Phase 1: Define

At PPT, voluntary pension contributions are facilitated by in-person cash transactions that are made to sales agents. These sales agents work in the market places, directly seeking out customers and asking them if they want to make contributions.

This method of collection is time-consuming and inconsistent, and agents are not always able to reach customers on a regular basis.

PPT has the capacity for customers to make contributions via direct debit orders (DDOs), which are automatic deductions made from the customers' mobile money wallet. However, there has been limited success in switching customers to this payment method.

Therefore, the **behavioural objective** set for this project is:

To increase the number of informal, market-based PPT customers who set up DDO payments for their pension contributions by 30%

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Phase 2: Diagnose

The purpose of Phase 2 is to set up the research activities, conduct the research and analyse the findings, allowing for a broad and deep understanding of the challenge as well as the root causes of the observed customer behaviour, and the psychological and situational factors that are producing it.

To accomplish this, the research team follows a multi-modal approach in investigating the potential root causes of the observed behaviour. This allows us to validate findings across multiple data sources, such as focus group discussions, customer interviews, administrative data analysis and dogfooding (the process of going through the customer journey for oneself or observing others do so).

Having conducted the research, the findings are consolidated and the primary barriers and drivers to the customer behaviour are identified.

Output:

A report describing the identified root causes for customer behaviour

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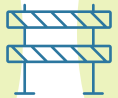
Phase 2: Diagnose

Our team conducted focus group discussions and customer interviews while in Accra, Ghana. In addition, we went through the DDO sign-up process ourselves, as well as observing several customers doing so with the assistance of the sales agents and reviewed PPT's administrative data.

Our findings indicated that not all the barriers to sign-up were behavioural in nature. Instead, many were structural and could not be solved by behavioural science.

Structural barriers are those that exist in the environment and are, generally, not possible to change.



Behavioural barriers are based on the behaviours, attitudes and beliefs of individuals and can be targeted through behavioural interventions.

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Phase 2: Diagnose

Structural barriers to DDOs in Accra, Ghana

Lack of awareness of DDOs	Many market vendors in Ghana have a limited understanding and awareness of a DDO as a payment mechanism.
Low trust in the financial sector	Following reforms in the financial services industry in Ghana, many citizens became sceptical of the formal financial sector for fear of losing their savings.
Reliance on sales agents	Customers have built a strong relationship with the sales agents, which facilitates trust between them and PPT. These relationships are so strong that many customers stated that they would stop their contributions if their given agent no longer came to collect their money.
Distractive market environment	The marketplace itself is an environment with a high level of sensory and cognitive distractions, while the work being undertaken by vendors is often time-sensitive. This reduces their ability to complete the DDO sign-up process, as they are unable to give their full attention to the process.
Distrust of mobile money	Market vendors are highly distrustful of mobile money wallets due to the prevalence of scams and fraud. Because of this, they use their mobile money wallets as a transactional vehicle but do not store funds there, preferring to withdraw their money and keep it in cash.
Risk of failed payments	Because of the preference for cash over mobile wallets, customers who successfully sign up for DDOs may experience failed contributions to their pension fund. In addition to this being frustrating to resolve, customers may only realise that their payments are failing when they try to withdraw their funds. If this occurs, their distrust of the formal financial sector may increase, resulting in lost customers for PPT.

Phase 2: Diagnose

Behavioural barriers to DDOs in Accra, Ghana

Social norms and enforcement	When making decisions, feedback and advice from family, friends and neighbours were very important and had a large impact on customers' opinions and willingness to try something new. In addition, the relationship between the agents and the customers acted as a commitment device that encouraged contributions more consistently.
Identity effects	The cash-based culture of the marketplace has created an identity wherein market vendors, especially women, identify themselves as "market women" and hold the belief that this, by default and necessity, means that they use cash. Shifting to mobile money, then, represents a movement away from their "identity" and will reduce the willingness to adopt DDO payments.
Ambiguity aversion	The fieldwork illustrated that, while market vendors were aware of the risks associated with cash, they were more concerned about the unknown risks of DDOs. Practically, this means that even when customers are able to acknowledge the benefits of DDOs, their concerns about the uncertain and unfamiliar risks of this payment method meant that they were unlikely to sign up/switch.
Hassle factors	For PPT customers, network connectivity issues, low batteries or vendors not having their phone with them were frequently observed factors that limited their ability to complete the sign-up process or made them unwilling to even try. In others, even if customers become convinced of the value of DDOs, the simple effort of overcoming these hassle factors is so high that the benefit is entirely outweighed.
Decision-making difficulties	The always-on nature of the market environment, combined with the lengthy sign-up process, resulted in many customers feeling overwhelmed. This cognitive overload often resulted in customers not being able to complete the sign-up process because there were simply too many decisions for them to make when doing so.
Loss aversion	Because the relationship with the sales agents is extremely important to customers, many customers expressed that they did not want to switch to DDOs because they did not want to lose their existing relationship with the agents.
Signalling	Cash contributions are easy to observe in the marketplace, while DDO contributions are not. If customers observe those around them switching back to cash or only see other vendors making cash contributions, then they may be unwilling to switch to DDOs.

Phase 3: Design

The purpose of Phase 3 is to use an understanding of the research findings to identify evidence-based interventions that can be recommended as remedies to the behavioural challenge.

This is accomplished through:

- **Reviewing the literature** to find and understand what interventions have been successful in the past, for targeting similar behaviours
- **Hosting an intervention ideation workshop** in which all stakeholders are encouraged to make use of "fast thinking" and creativity in developing potential interventions
- **Intervention prioritisation workshop** in which the full set of interventions are re-examined and prioritised (At the end of the workshop, a short list of interventions should remain, from which the experiment can be designed.)

Output:

A set of interventions that have been prioritised for inclusion in the experiment

Phase 3: Design

Four key barriers	Intervention programme
1 Capturing attention	Design visuals that frame the benefits of DDOs in a way that customers can easily digest the information; present customers with video testimonials that describe the benefits of DDOs; give customers gifts if they successfully sign up to DDOs as a signal to others that vendors are making DDO contributions.
2 Inspiring trust and confidence	Encourage the agents to greet and interact with customers as they usually would to maintain trust; present customers with testimonial videos that include trustworthy individuals who have switched to DDO contributions; clearly frame the benefits of DDOs over cash contributions.
3 Reducing set-up frictions	Create a checklist for set-up that customers can complete in advance; show customers screenshots of the process so that they know what to expect.
4 Committing to contributions and consistently making them	Ask customers to go through an implementation plan that describes when and where they will top up their mobile money wallet to encourage them to do so on a continual basis.

Phase 3: Design

Phase 4: Deploy

The purpose of Phase 4 is to understand the impact of the prioritised interventions using experimental techniques. Based on the outcome of this experiment, a confident decision can be made about whether the intervention should be scaled to all customers.

Experiment design and implementation involves several steps:

1. Developing hypotheses
2. Determining the randomisation principle
3. Implementing the experiment
4. Analysing the results

Output:

A report describing the outcome of the experiment, which should include a scaling decision for the intervention

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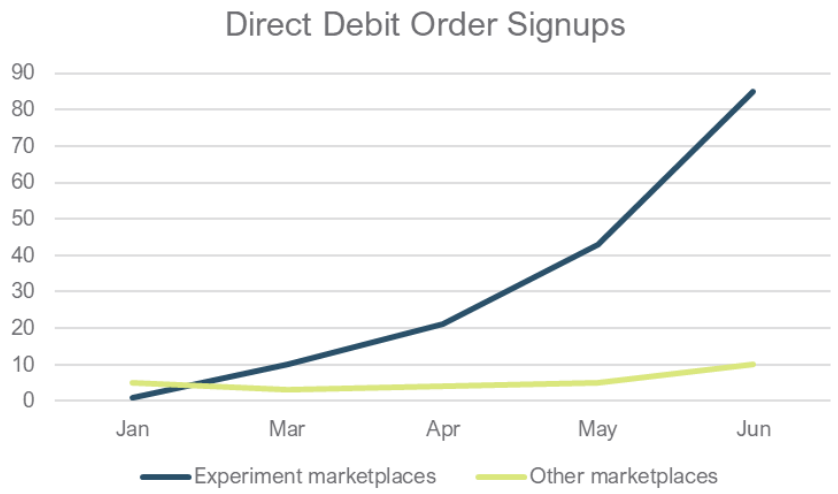
Phase 4: Deploy

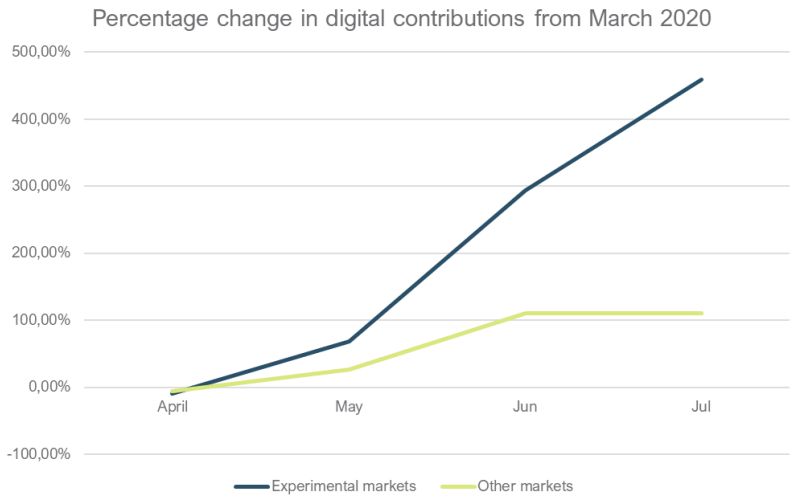
The PPT project included three distinct experiments, each of which responded to the behavioural barriers that we identified in Phase 2: Diagnose. The hypotheses for these experiments are:

Experiment 1	Can a behaviourally informed onboarding programme increase interest in, and sign-up to, DDOs?
Experiment 2	Is authority bias or social norms more effective at increasing interest in, and sign-up to, DDOs?
Experiment 3	Does an implementation plan increase the successful payment of DDO contributions?

Did the behaviourally informed onboarding system increase interest in, and sign-up to, DDOs?

The variables of interest in this experiment were signups to DDOs and digital contributions amounts from customers. **If the marketplaces where we tested the behavioural onboarding process received higher signups and contributions over the course of the experiment than other marketplaces, we can conclude that the behaviourally informed onboarding program is likely effective at increasing signups to DDOs.**





Conclusion

The behaviourally informed onboarding programme increased sign-up to DDOs.

Recommendation

Scale the onboarding programme to all marketplaces.

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Was authority bias or social norms more effective at increasing interest in, and sign-up to, DDOs?

We measured **whether the treatment groups were more effective at increasing sign-ups to DDOs (than the control group) and then which of the two treatments was more effective**. This was done through measuring two outcomes: first, measuring successful sign-ups to DDOs and, second, measured by including all those customers who attempted to sign up but were unsuccessful in doing so.

	Sample	Expressed interest	Successful sign-up
Control	328	29.88%	21.65%
Treatment 1 (social norms)	116	33.62%	23.28%
Treatment 2 (authority bias)	113	30.09%	25.66%

Conclusion

Testimonials were, overall, ineffective at increasing interest in and sign-up to DDOs. There was no difference between authority bias and social norms.

Recommendation

Do not scale to other marketplaces.

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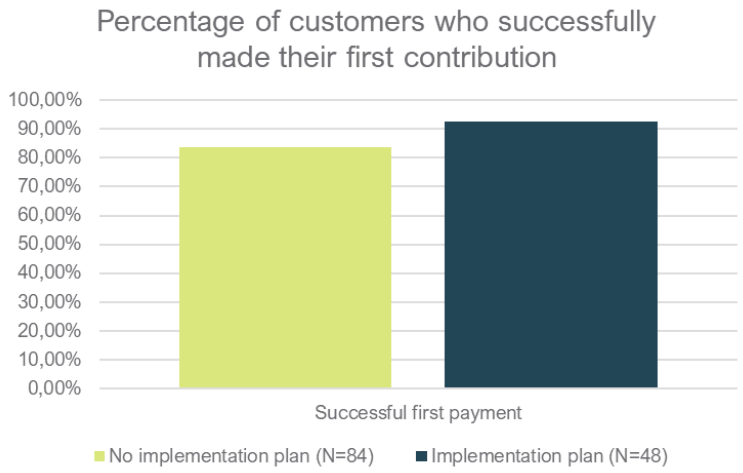
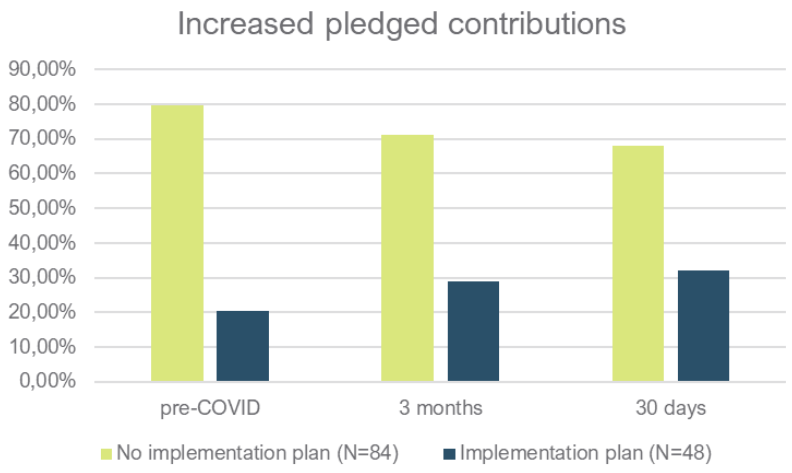
Did the implementation plan increase the successful first contribution through DDOs?

In this experiment, we measured whether the control or treatment group was more likely to successfully make their first contribution, as well as measuring the average number of successful contributions made by each group in the weeks after they had signed up.

If the treatment group was more likely to make their first contribution than the control, and if they made more successful contributions on average, then we can conclude that the implementation plan was successful in increasing the frequency of contributions.





Conclusion

The implementation plan was successful at increasing both successful contributions and contribution amounts.

Recommendation

Scale the implementation plan to all customers in all markets

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Conclusion

Four key learnings from the PPT project

Our experience on this project highlighted four key learnings about behavioural science more generally:

1. **Little things can make a big difference.** The results from the first experiment, where customers were exposed to simple interventions such as visuals and simplified processes, made a significant difference to the successful sign-up of customers. This highlights a fundamental point of behavioural science, which states that small changes can make a significant impact on behaviour.

2. **The importance of testing.** Testimonials, authority bias and social norms are well-studied effects and interventions in behavioural science, with them often giving successful results. In our experiment, these interventions showed no difference in increasing DDO sign-up and, in fact, may have contributed to the cognitive overload that customers face. The fact that these had no impact in Ghana highlights the importance of considering local context and testing interventions before scaling them.

3. **Behavioural science is not a silver bullet.** Despite seeing overall positive responses to DDOs from customers who were exposed to the interventions, close to 25% of customers who were interested in DDOs were not able to successfully sign up. Simply put, structural barriers cannot be overcome with behavioural interventions, and these should be considered when examining the value of targeting a problem using behavioural science.

4. **The importance of measuring the right thing.** Finally, our third experiment showed that the implementation plans increased the number of successful contributions made by customers who had signed up for DDOs and indicated that customers were more likely to make consistent contributions. In addition, customers who were exposed to the implementation plan committed to contributing less, relative to the control group, but were better able to think through realistic contributions for themselves. This increases the likelihood that they can maintain their payments in the long run. This finding highlights the importance of measuring the right variables: It is easy to assume that increasing the value of contributions is the most important business objective, but doing so at the cost of sustainable payments is detrimental to both the organisation and to customers.

Thank you

About Cenfri

Cenfri is a global think-tank and non-profit enterprise that bridges the gap between insights and impact in the financial sector. Cenfri's people are driven by a vision of a world where all people live their financial lives optimally to enhance welfare and grow the economy. Its core focus is on generating insights that can inform policymakers, market players and donors who seek to unlock development outcomes through inclusive financial services and the financial sector more broadly.

About insight2impact

insight2impact is a resource centre that aims to catalyse the provision and use of data by private and public-sector actors to improve financial inclusion through evidence-based, data-driven policies and client-centric product design. insight2impact was established by Cenfri and FinMark Trust through the funding of the Bill & Melinda Gates Foundation in partnership with The MasterCard Foundation.

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