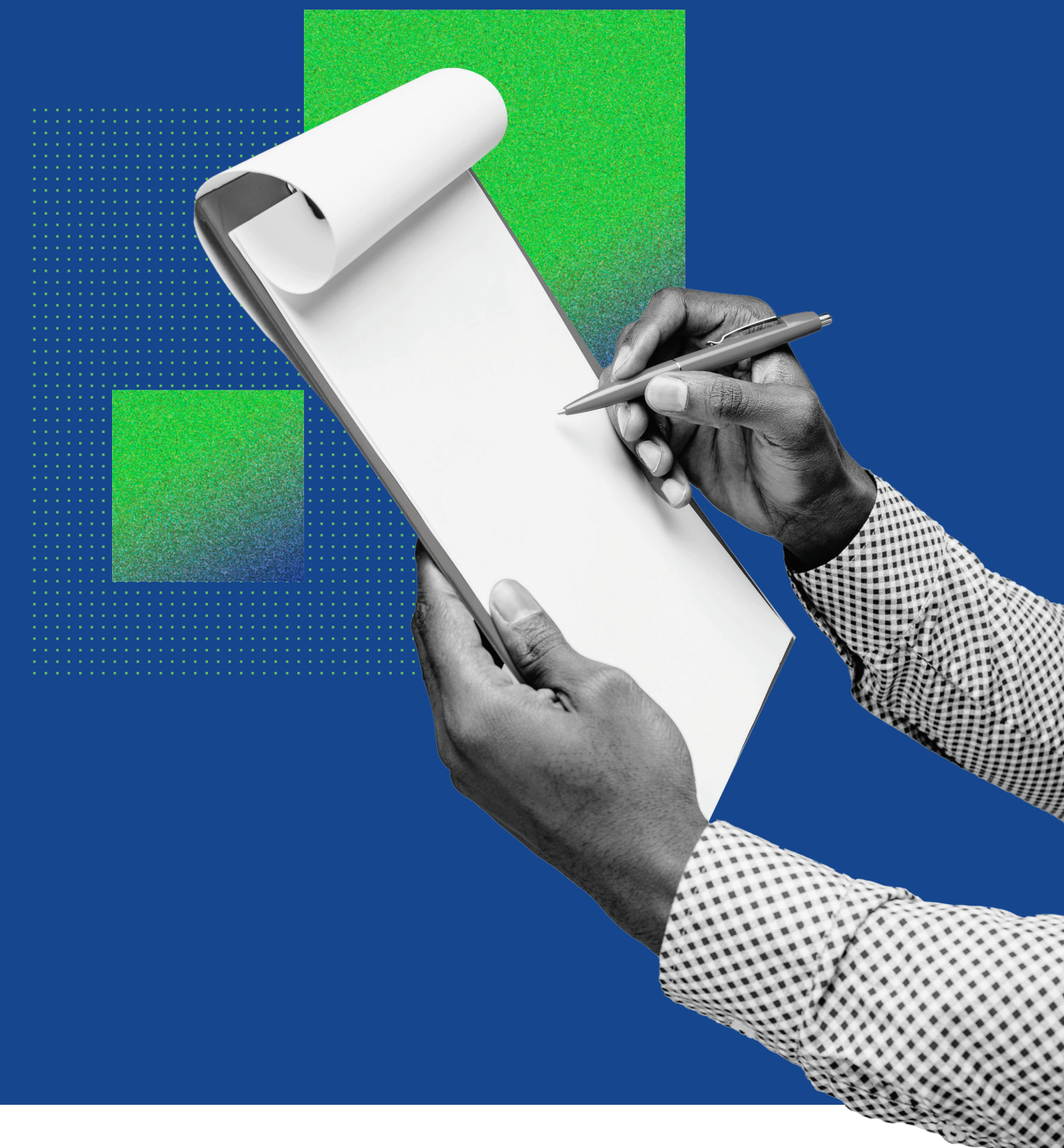


# Enhancing SRH Delivery through Human Centered Design: A Behavioral Audit of e-Pharmacy services in Nigeria



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## A Introduction: Why e-Pharmacy in the context of family planning?



The growing e-Pharmacy market in Africa presents an innovative solution to improve access to sexual and reproductive health (SRH) products and services. It addresses unmet needs by enhancing choices, privacy, convenience, and in some instances, cost savings. This study explores the HealthPlus e-Pharmacy service in Nigeria, examining its potential to enhance access and use of modern family planning (FP) products with focus on identifying and overcoming behavioral pain points throughout the purchase process.

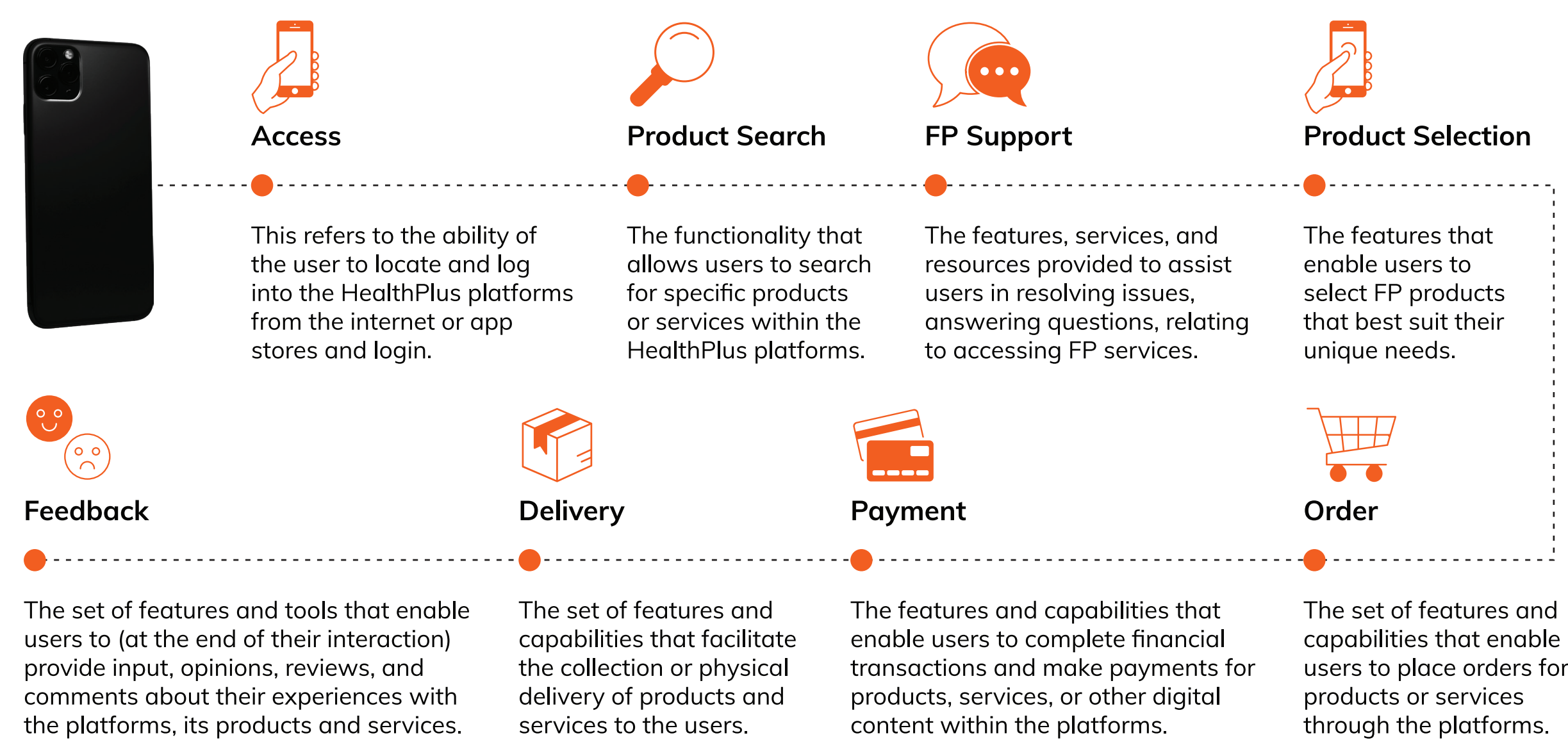
Employing qualitative research methods like **user observations** and **in-depth interviews** with e-Pharmacy service providers, this study adopts a behavioral science approach to evaluate the HealthPlus e-Pharmacy platforms.

Recognizing the central role of consumers within this ecosystem, we believe that there exists significant potential for system enhancement through the application of **human-centered design thinking** and the resolution of common barriers to SRH adoption.

## B Approach: What is a behavioral audit?

A behavioral audit evaluates user experience and communication strategies within a system with the goal of assessing the effectiveness of current systems, and identifying strengths and weaknesses. Within the e-Pharmacy ecosystem, this represents a diagnosis of usage patterns, user preferences and user journeys as they navigate the application. The analysis is undertaken to generate recommendations aimed at improving user engagement on the platform, removing pain points on the user navigation experience and overall derive demand on the platform.

The typical user journey on e-Pharmacy platforms is divided across the following eight stages.

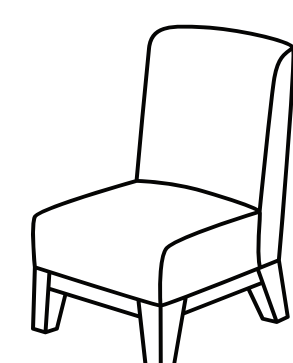


## C Methodology: What did we do?

**Overview:** The primary goal of the methodology was to observe user interactions with the HealthPlus e-Pharmacy platform in order to identify enhancements for optimizing the overall user experience when accessing FP products and services on the platform.

**Study Design:** We designed a two-step qualitative study to observe user behavior on the HealthPlus platform comprising of an observation study and in-depth interviews.

- We conducted user-testing sessions on the HealthPlus platform with 10 users (4 regular e-Pharmacy FP, 2 non-FP, 2 brick-and-mortar, and 1 person from an underserved location). The research team observed participants both in person and virtually as they complete various open-ended tasks and scenarios given to them. The tasks were designed to observe how users access the app, search for products, seek support from telemedicine providers and e-Pharmacists, upload prescriptions, get advice, and complete transactions. Additionally, we gathered feedback on delivery experiences from study participants and tested the delivery of FP products to firsthand identify any pain points associated with delivery logistics.
- Additional perspectives from in-depth interviews with 50 users (current e-Pharmacy FP users, current non-FP e-Pharmacy users, and brick-and-mortar users) were incorporated to add further context to the audit, especially from the SRH perspective. They were particularly helpful in mapping out the SRH landscape of users especially barriers to access and enablers of SRH uptake.



## D Results: What are the most important findings?

The study yielded some insights both around how users make decisions about SRH adoption as well as how they interact with the e-Pharmacy environment. We present some selected findings below:

Information about side effects is an important decision point for users, which can be effectively designed in the e-pharmacy environment.

Users' expressed desire to learn more about a new products on the platform but were hampered by the lack of sufficient supporting information. This may prove to be disadvantageous for consumers browsing for product selection, reflecting a behavioral pain point.

There is an opportunity to better position SRH delivery within e-Pharmacy as a go-to option for new users of FP products. This is particularly useful because FP product demand often suffers from misinformation (Mbachu et al., 2021). Crucially, the e-Pharmacy's user-interface design is as an ideal platform to address this issue by providing relevant information with minimal barriers, where behavioral research guides the optimization of information to maximize user response.

Users find the feature to consult e-Pharmacists and TMPs useful, but there is a need to make it smooth and more accessible.

Users with low awareness or knowledge about SRH products benefit from the option to interact with e-Pharmacists and TMPs, as provided by HealthPlus. Yet, behavioral challenges, such as the lack of trust in individuals whose faces or credentials cannot be interacted with / verified, persist.

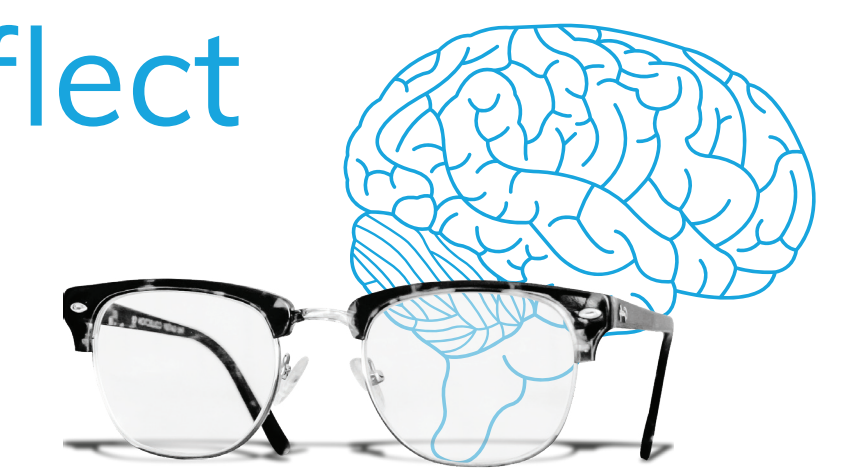
There is a need to make the consulting process seamless, connecting TMPs to real-life, verifiable institutions as well as making UI/UX enhancements to minimise interaction friction.

Uploading prescriptions is a pain point for e-Pharmacy users which can be addressed at the system level via Digital Health.

Many SRH products in Nigeria (such as Sayana Press) require prescriptions. However, new users often drop off when required to provide prescriptions due to the additional friction of uploading prescriptions.

To address this, we propose adopting a system-level solution, such as e-prescription services seen in Europe, creating a digital network for prescriptions and direct delivery. Feasibility studies for e-prescription services in Nigeria have been explored previously (Omotosho et al., 2018), providing a foundation for similar initiatives.

## E Discussion: How does our work reflect on the integration of Behavioral Science and Digital Health?



Beyond core findings from our work, it provides a strong reflection for the potential of using tools from behavioral and experimental economics, including but not limited to human centered design, qualitative research and causal inference based in experiments. In the section, we present a few ways in which digital health and e-Pharmacy can benefit from embedding behavioural research techniques.

**e-Pharmacy is compatible with personalised nudging as users have varying family planning product preferences.**

E-commerce platforms allow for accurate observation of user engagement and activity on the platform under relatively controlled and stable conditions, similar to a lab setting. This allows for accurate tracking of how users interact with FP products, enabling e-Pharmacy services to engage users through personalized nudging. For instance, users buying condoms for immediate use could receive instant delivery discounts, while those taking Oral Contraceptive Pills (OCPs) periodically might benefit from reminder notifications for consistent dosage.

**e-Pharmacy ecosystem is optimal for rapid A/B testing, allowing for the development of iteratively tested solutions.**

Most recommendations in this report can be swiftly validated and optimized by embedding experimentation on e-Pharmacy platforms, particularly through A/B testing. A/B testing involves comparing two versions of the product page (A and B) with randomly selected groups to determine the more effective one based on performance metrics. Online environments, like those in e-Pharmacy platforms, provide a controlled setting for consistent sampling, effective randomization, and easy tracking of outcomes. Establishing a robust experimentation ecosystem allows for testing and iterating toward optimal solutions. For example, Busara has successfully used A/B tests in various contexts, such as comparing star ratings to quality labels for effective product or service quality signaling.

**Utilise behavioral science to build trust in e-Pharmacy services, which is key to enable effective decision making.**

e-Pharmacy, despite its scale, is perceived as an 'impersonal' channel, offering products traditionally obtained through trusted in-person interactions. Concepts and tools from behavioural science research offers a few solutions to address the barrier of trust and boost consumer demand. These include social norm nudging, guiding individuals by showcasing the behavior of trusted figures, and quality signaling, effectively communicating quality in a way users are more likely to accept.

## F Next Steps: The way forward

This study has provided insights into two substantive themes: **family planning and user engagement on e-Pharmacy**. We see a lot of room to bring these together to generate innovative solution using HealthPlus and generating a success story to promote SRH uptake and create a business case for other players in the market. In the next phases of this ongoing research, we plan to develop and test some solutions rooted in behavioral science and report on the findings to support our narrative.

Digital health represents a shared space where many solutions overlap and reflect positive externalities with the e-prescription cited above being a clear example. We hope this study will serve to highlight the value of digital health solutions as well as offer a success story to fuel further innovation in this space.

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