Warranty breach management: An overview

Introduction

A warranty breach occurs when a manufacturer, seller or service provider fails to abide by the promises made under any guaranteed warranty. Warranty breach can broadly be defined as misrepresentations of a condition which was warranted to be true or refraining from necessary professional conduct which is necessary under specific circumstances. Warranty breaches are examples of economic crimes. The necessity of mitigating economic crimes is clear from the observation of the Global Economic Crime and Fraud Survey conducted by PwC in 2018 in which 49% of the respondents stated that they had been victims of economic crime.[1] Warranty management is the process of regulating the creation and subsequent implementation of a product. The effective initiation of this process prevents the onset of warranty fraud. Warranty management is important because it helps in improving the reporting of product-related defects, ensures swifter product quality analytics and eliminates potential gaps caused by product defects in the product lifecycle process as managing warranty directly ensures quality control.

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1 Source: PwC Global Economic Crime and Fraud Survey. (2018). Retrieved from: https://www.pwc.com/gx/en/news-room/docs/pwc-global-economic-crime-survey-report.pdf

Challenges related to warranty management

The absence of a consolidated warranty management process could lead to the following challenges:

Figure 1: Issues related to warranty management

1. Fraudulent sale of extended warranties

Sales channel employees and warranty service providers can engage in fraudulent actions related to warranty by selling extended warranties that fail to offer any additional protection. The absence of a proper warranty management platform makes it immensely difficult to track the status and authenticity of warranties. Customers may be unable to discern fraudulent warranties from genuine ones and the perpetration of fraudulent warranty sales can drastically reduce the customers' trust in the warranty process. Warranty providers are not the only initiators of warranty-related fraud and the fact that other product lifecycle stakeholders like customers and sales agents can also perpetrate warranty fraud is a testament to the need of a well-developed platform for warranty management.

2. Lack of a common platform for safe warranty management and record-keeping

In recent times, cases of fraud have been on the rise. While 36% of the respondents to the PwC Global Economic Crime and Fraud Survey stated that they had been victims of fraud in 2016, the proportion increased to 49% in the 2018 survey.[2] A common platform for secure warranty management can help users in adding and updating their warranty data records in real-time, thereby ensuring better data management and reducing the possibilities of fraud. The addition and updating of warranty data in real time can immediately alert stakeholders like sellers and customers to any potential discrepancy and any attempt at initiating a fraudulent warranty sale or any errors in warranty records can be immediately detected. Many business owners, however, continue to record their warranty data manually. Since the chances of errors are high in these cases, making use of a common platform for effective warranty management is the best course of action to prevent such problems.

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2 Source: PwC Global Economic Crime and Fraud Survey. (2018). Retrieved from: https://www.pwc.com/gx/en/news-room/docs/pwc-global-economic-crime-survey-report.pdf

Benefits of technology in warranty management

Concerns regarding warranty fraud require specific considerations like implementation of controls for ensuring adherence to warranty policies by the employees and partners. Determining whether the warranty claim is genuine or not requires time to process the data along with appropriate data management tools. Tech-enabled solutions can simplify the process of recording and tracking warranty data and prevent the onset of errors commonly associated with manual mistakes. Furthermore, tech-enabled solutions can ensure the timely discovery of any attempts at record tampering, initiation of fraudulent sale and authentication of warranty offers. Warranty offers recorded in tech-enabled solution platforms can be tracked on a timely basis and enable organisations to check any potential discrepancies or errors. Therefore, warranty fraud becomes immensely difficult upon the implementation of tech-based solutions.

Blockchain can be an ideal technological solution for the mitigation of challenges related to warranty fraud. Since blockchain is a distributed, decentralised and tamper-proof ledger, it can eliminate unnecessary intermediaries, reduce cost and increase security for business transactions. It can also offer greater transparency and traceability for many business processes, making it ideal for handling a variety of warranty issues.

Benefits of blockchain technology for mitigating warranty frauds

The immutable nature of blockchain makes it ideal for keeping and updating records. Data associated with warranty offers can be recorded and tracked with negligible possibilities of unauthorised data tampering. Some of the benefits of using blockchain to curb warranty frauds are:

1. Mitigation of fraudulent extended warranty sales

Blockchain offers advantages in accessibility, transparency and decentralisation. Since blockchain-based public records are accessible to anyone through trusted public records, warranty providers can have the option of validating the claim and status of the warranty. Warranty details, information on the sellers and details of the customers are all recorded on the blockchain. Furthermore, issues like fraudulent sales of extended warranties and attempts to manipulate records can be identified using the blockchain network owing to its decentralised nature. Since blockchain is decentralised and secure, only the personnel who are authorised to access the network can make changes to the records. Attempts at unauthorised record tampering fail, while only authorised changes are tracked in the network. Problems like attempted fraudulent warranty sales can, thus, be mitigated since any unauthorised tampering with the network records for the purposes of illegal warranty sales is immediately detected.

2. Reduction of warranty fraud perpetration

Using blockchain can make the entire warranty management process faster, more efficient and less complicated through tamper-resistant record-keeping. Since blockchain ensures secure record-keeping, unauthorised attempts at modifying or tampering with data records can be thwarted. It can also reduce administrative and processing costs. Automated warranty management can provide the following advantages:

- reduction in the time needed for verification of documents
- decrease in the number of fraudulent claims
- minimal mismatches associated with warranty information
- cost-related savings
- enhanced traceability and transparency
- reduction in risks
- increase in new business opportunities
- focus on customer-centricity

3. Developing a common platform for safe warranty management and record-keeping

Blockchain helps in making multi-party transactions frictionless and ensures transparency, data security and stability. Furthermore, the decentralised nature of blockchain makes the development of a single platform which can provide multiple features possible and easier. Providing businesses with a common platform can help them in updating their data in real time. This real time data can be fetched and used by customers as well.
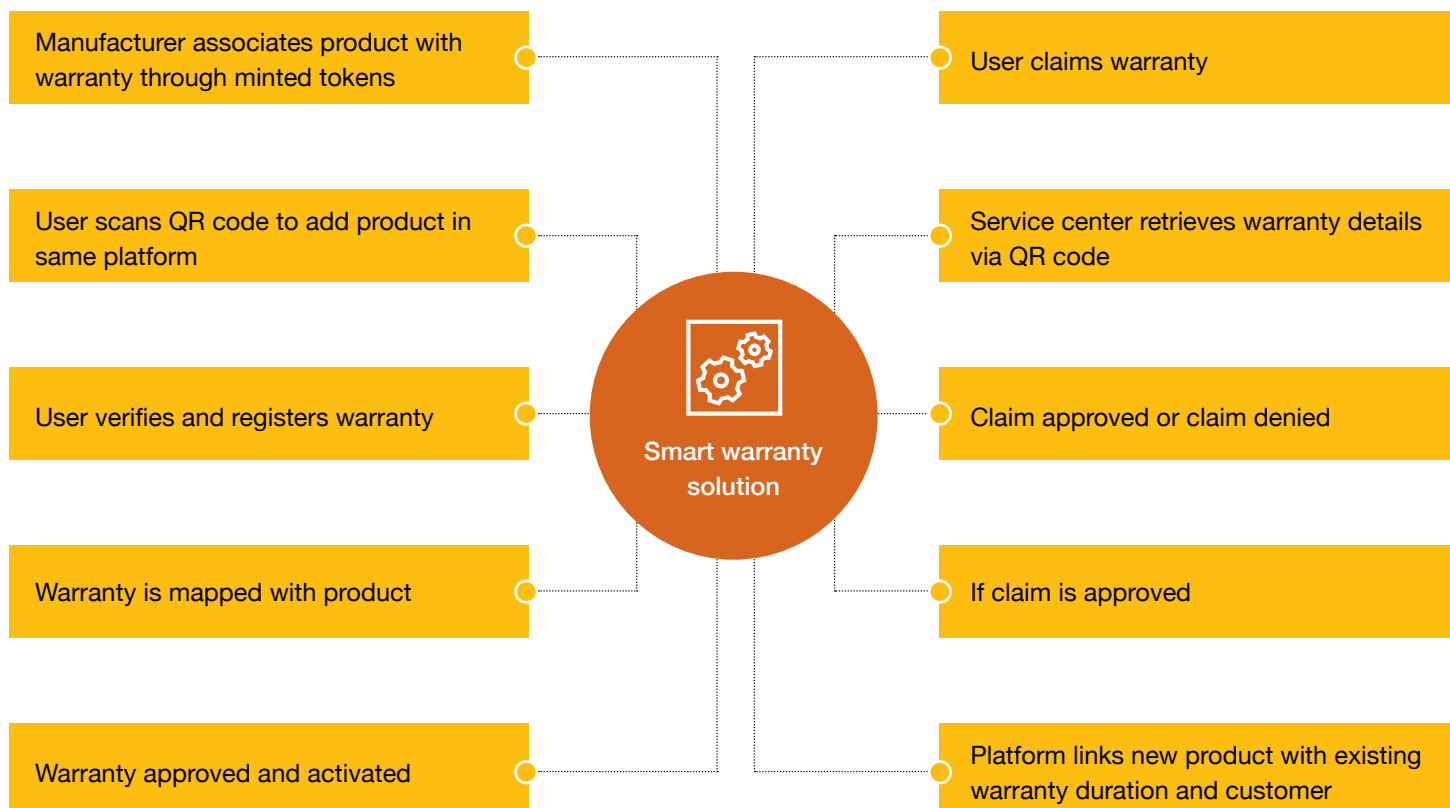
4. Authentication of warranty claims

Blockchain can be helpful in the authentication of claims associated with the warranty process. Warranty genuineness (including the terms, conditions and warranty amount) can be accurately tracked if all the data is added to and fetched from a blockchain server which makes blockchain a safe choice as a technology which can be used to counter warranty frauds.

How PwC can help

PwC proposes a blockchain-based warranty management platform which enables complete authentication of product warranty service requests which can enhance trust and boost sales. The prototype platform can help quicken decision-making for sellers and decrease the warranty settlement time significantly. The proposed solution is expected to utilise QR codes for the addition of products for their subsequent registration. Once the warranty is mapped with the product and activated, users can make warranty claims at their convenience. Linking newer products with existing warranty durations is also possible through the proposed solution. Therefore, the proposed platform will be an end-to-end solution that can help customers to claim warranties, and assist manufacturers to sell warranty and take real-time records from a single source for better warranty claim authentication. The following are some of the benefits of the proposed platform:

Figure 2: Proposed smart warranty solution (WIP)

Manufacturer associates product with warranty through minted tokens

User claims warranty

User scans QR code to add product in same platform

Service center retrieves warranty details via QR code

User verifies and registers warranty

Smart warranty solution

Claim approved or claim denied

Warranty is mapped with product

If claim is approved

Warranty approved and activated

Platform links new product with existing warranty duration and customer

Manufacturers can provide their customers with warranty services for specific products.

Entities like manufacturing businesses can make use of the solution to associate products with warranties through minted tokens and ensure the verification and registration of the warranties on a single platform.

The utilisation of tokens mitigates the possibilities of fraud or errors in warranty service initiation.

Figure 3: Proposed solution (WIP)
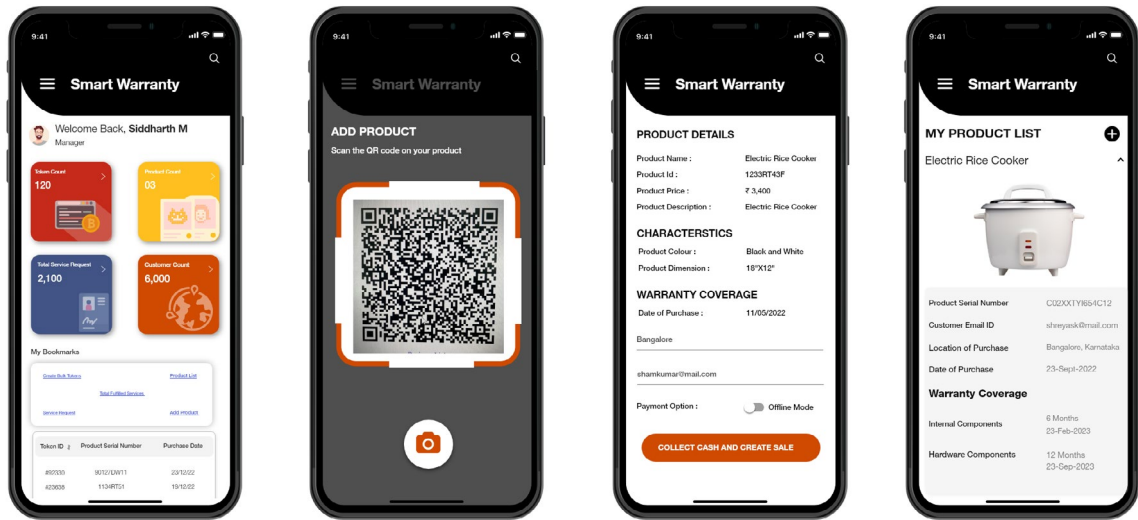
Smart warranty solution workflow proposed by PwC

On this proposed platform, customers can track all the products purchased against their digital identity. In addition to adding warranties and making warranty claims, consumers can use the proposed solution for extending their existing product warranties as well. Furthermore, customers can also make use of multiple payment options while utilising the application for warranty extension.

Figure 4: Proposed solution (WIP)
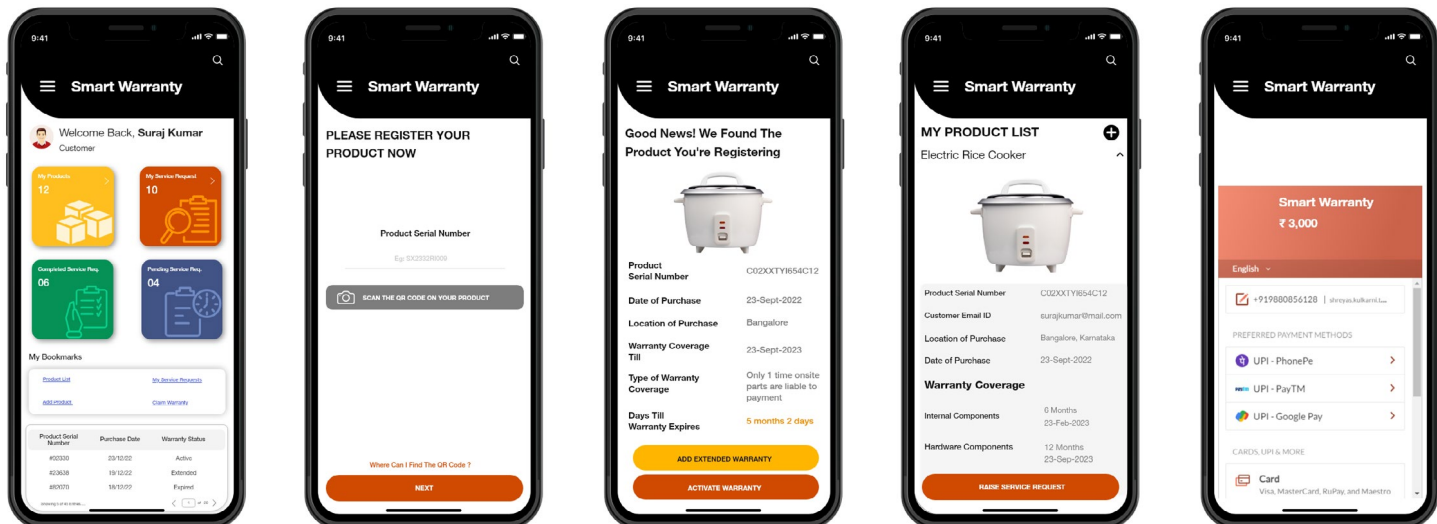
Smart warranty management solution proposed by PwC enables product lifecycle stakeholders like manufacturers and customers to check the warranty management process and detect discrepancies. For instance, misleading information by manufacturing businesses can be prevented since the warranty is documented on the platform. Any breach of the terms and conditions of the warranty or associated fraudulent actions can be mitigated using the proposed end-to-end PwC smart warranty management platform. The proposed solution can, thus, enable smart and effective warranty management by businesses and customers, discern attempts at warranty fraud perpetration and swiftly detect any errors in warranty records.

About PwC

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PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.

Contact us

Indrojeet Bhattacharya
Executive Director, Emerging Technologies
indrojeet.bhattacharya@pwc.com

Ashootosh Chand
Partner, Emerging Technologies
ashootosh.chand@pwc.com

Editorial support

Rubina Malhotra

Design

Shipra Gupta

Contributors

Indrojeet Bhattacharya
Executive Director, Emerging Technologies

Pooja Jalikop
Director, Emerging Technologies

Ritesh Kumar Khandelwal
Senior Associate, Emerging Technologies

Biswanath Das
Senior Associate, Emerging Technologies

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