

INTERNET OF THINGS AND ITS IMPLICATIONS ON FINANCIAL SERVICES

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Annotation: *Financial Services (FS) sector in today’s time is highly dependent on technology for various transactional activities. With increase in smart devices that enable customers to make payments or authorize transactions more conveniently, IoT (Internet of Things) seems to be a major enabler for this domain. IoT, paired with other latest technologies like blockchain, ML and others has made the process of using smart devices more practical and secure over time for financial transactions. The objective of this paper is to understand the impact of IoT applications on Financial services by studying the applications cases, benefits, and future scope of IoT technology in this sector.*

Key words: *application, industry, risks, smartphones, wearable devices, finance leaders, modernization.*

Introduction

It is clear that technology has evolved and has blended into various domains with various applications and it is hard to find a sector that does not depend on it in today’s time. IoT is one such technology that is finding its way through most of the industries from different domains for different purposes. Be it manufacturing, healthcare, supply chain, energy grids, smart cities, IoT seems to have paved its way through almost all the domains. With the advancements in smart devices like smart appliances, smart wearables etc. it has become a part of daily life for an average individual. With such level of penetration into a user’s life it is fair to leverage such technology for the benefit of ease of financial transactions. While there exist a ton of challenges like data security and data management etc. the advancements in security domains and other technologies like blockchain that enable safer transactional activities, make IoT in financial services less of a dream and more of a practical solution that can fill gaps in the industry with better functionality resulting in customer satisfaction and subsequent growth. With smartphones the market saw a major trend in customers relying on mobile banking and companies relying on user authentication through mobiles phones.

Admittedly, advancement in building smart technology is helping such transactions get more easier with smart wearable devices which are paired to mobile phones and help in similar transactions. IoT devices also bring in huge amount of data that can be leveraged to benefit the customer with better insights and better user experience. With IoT, the basic risk that prevails is the exposure to the largest network called the internet which also means

exposure to risks involved along with it. While it seems like IoT has penetrated beyond expectations into the market already, there still is a huge scope of improvement in terms of standardizing, structuring and regulating the use of IoT and making it more reliable in order to move towards an IoT enabled environment for the financial services.

Main body

What is IoT?

Apparently, The Internet of Things (IoT) is a rapidly expanding network of linked devices that use embedded sensors to collect and exchange data in real-time. In recent times, IoT has provided the fintech industry with a significant boost, particularly in terms of security and payment processing. Devices embedded with sensors and other IoT technology mechanisms are used as mobile point-of-sale systems, such as contactless cards. IoT also helps finance teams collect and share data easily and use it for making better decisions on investments, insurance amounts, customer risks and so on. IoT supports and elevates customer experiences. The data collected by IoT devices also helps detect fraud and cyber threats.

Moreover, IoT helps finance departments save time and money by gathering and transferring data efficiently. It aids to automate core finance processes through efficient collection and processing of information. The application of IoT in finance also extends to improvements in enterprises' customer experience to a large extent. There are a ton of advantages of IoT in FS. For example, IoT is beneficial to collect data from multiple sources to help improve decision-making. It also supports machine-to-machine communication, thereby automating a variety of tasks. Many business decisions including investment decisions are based on in-depth data analytics, business pattern analysis, and market research. Businesses can use IoT devices to collect and analyze clients' data to gain valuable insights into their needs and ensure faster decision-making. IoT becomes even more powerful when combined with advanced technologies such as AI that have several use cases in finance. to drive strategic decision-making. By leveraging AI, ML, and RPA finance leaders can more effectively analyze big data and make informed, strategic decisions on how best to allocate resources.

Additionally, trade finance can be a shining example for the application of IoT in current services. Trade finance, over the years has evolved but its dependence on technology for assessing risk and increasing transparency in the trade credit and financing process has been limited and new technologies have aided in the modernization of trade finance. Risk assessment in trade financing has traditionally followed a manual assessment process so far due to absence of reliable technology. With the advent of reliable and durable equipment like enhanced sensors, secure and easy cloud-based infrastructure set-up etc., the trade finance industry foresees a major scope in terms of using IoT to access real time data instead of historic data to accurately and instantly calculate credit risk and offer high level of customization to offer trade finance solutions.

Conclusion. The world is moving towards using data to make lives easier by the day for businesses and individuals, much faster than ever before and with the ever-growing

methods of collecting data from different sources. The Impact particularly on the FS sector is expected to be much larger considering how much the sector is untapped so far in terms data collection using IoT for transforming the services provided and the user experience. IoT can become a core technology for the FS sector by transforming the sector by providing exposure to the kind of data that was never available to the sector ever before.

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