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How Valuable Is The FinTech Innovation

FinTech, or financial technology, has received a lot of attention recently as a result of its rapid advancement. FinTech's emergence has been hailed by many observers who believe that it can drastically alter financial services by making transactions more affordable, convenient, and secure. Major financial institutions and technology companies are also spending more money on FinTech innovation. FinTech has garnered a lot of attention, but it is still unclear exactly how it will impact conventional financial firms and their business models. Financial institutions are now able to provide customers with fresh and unexpected services because of new developments in fintech (financial technologies). The financial sector is experimenting with a variety of technologies, including blockchain, new delivery platforms, digital-only banking, and automation. Even while a broad definition of fintech as any technology that supports or improves the delivery of financial services is possible, this definition is only partially useful for objectively identifying and categorizing real-world fintech. Therefore, to move further with our analysis, we need a typology that: (1) distinguishes FinTech innovation from other types of financial or scientific innovation; and (2) articulates the key technological differences among various instances of FinTech innovation.

It is possible that financial services innovation does not produce quite as revolutionary goods, most advancements are still guided by the idea of bettering existing practices. Financial

institutions are looking to innovate in order to save costs (a significant driver following the financial crash), increase efficiency, reach new consumers, enhance the customer experience, and, of course, make money. While innovation is frequently thought of as something new, it is frequently founded on rethinking how current systems or processes are used; in other words, improving them. We discover that the majority of FinTech technologies provide innovators with significant value, with blockchain being especially rewarding.

According to the article, they investigate how much financial services companies stand to gain from their FinTech developments using their valuation methodology. According to the estimates, a FinTech innovation often has a high and positive private value (i.e., a value that goes to the innovator). For instance, the median private value of a FinTech innovation is roughly $46.7 million in 2017 dollars, which is significantly greater than the median private value of other financial breakthroughs, which is $3.1 million. Overall, blockchain, cybersecurity, and robo-advising are the FinTech innovations kinds that are most beneficial to inventors. They broaden the scope of our valuation methodology to investigate the impact of FinTech developments on the financial services industry and its major subsectors, including banking, payment processing, brokerage, asset management, and insurance. To provide an example, as per their estimations, the typical FinTech innovation adds value to the financial industry as a whole. IoT, robo-advice, and blockchain had the highest value impacts, with median value impacts of $24.5 billion, $15.5 billion, and $8.1 billion, respectively (2017 dollars).

Using machine learning to identify and classify FinTech innovations was mentioned in the article. “The application of these methods requires three basic steps: text preprocessing, creation of a training sample, and training one or more algorithms to produce a classification.” Step 1: Preprocessing text contained in filings; Each patent application document is preprocessed

using typical methods in text-based analysis, such as tokenization, stemming, removing stopwords, and removing extremely common phrases. They translate every filed document into a numerical vector of "term frequency-inverse document frequency" scores using a "bag of words" strategy. A word's score indicates how significant it is to a document within the larger collection of documents. Step 2: Constructing a training sample; They first assemble a list of businesses mentioned in the yearly FinTech polls conducted by six different magazines to create a training sample for the machine-learning algorithms. The companies from Compustat that rank among the top ten most prolific patent filers in each of the five financial sectors commercial banking, payment processing, brokerage, asset management, and insurance are added to this list. They choose a random subset of 1,000 out of all Class G&H patent applications submitted between 2003 and 2017 by companies on our list. We look over and manually group the 1,000 filings into nine categories (seven for the FinTech categories, one for other financial filings, and one for nonfinancial filings). Lastly, Step 3: Applying machine-learning classifiers; Training and using one or more supervised machine-learning algorithms is the critical step in classifying the larger set of 67,948 text-filtered filings. Instead of only using one method, we employ several families of algorithms, each of which has been thoroughly investigated and successfully used to solve classification issues in other domains. 16 Support vector machines (SVM) and neural networks are the two categories of classifiers that are most essential to our research. These two strategies are briefly described in Appendix A, together with information on the particular hyperparameters and design decisions we apply for each strategy. We also train and use the Naive Bayes (NB), k-nearest neighbor (kNN), random forest, and gradient boosting classifiers for comparison's sake.

In my perspective, to achieve consistent growth in the market, financial services must be viable and scalable over time. Various financial industries have not been able to profit in many parts of the world for a variety of reasons. Wider commercial potential fails as a result of the lack of service in many regions. It is advised that the financial sectors begin making investments in the established market. This is essential because, by 2030, the growth and revenue generated by the market's faster-growing companies may be comparable in these mature markets. Steady growth is one of the main advantages of investing in other regions or mature markets. For instance, the loss can be made up by the revenue that is emerging in the mature market if one location's revenue is below the required level. Similar circumstances likewise hold regardless of region. In conclusion, the financial sector has a bright future ahead of it. As time goes on, card and mobile payments will become more popular, and cash transactions will decline significantly. The fintech sector is promoting rapid innovation in a short amount of time, and future developments are expected to be even faster.