

During the research, the author has collected and analysed an extensive amount of data from different underground forums which are in free access or fairly easily accessible through free registration, ranging from heavy focused on economic crimes ones to hacker communities and data breach oriented markets. The author has discovered that lawbreakers are indeed engaged in the communication on the underground forums, asking for help or advise from more experienced fraudulent actors, including about TransferWise or attempt to sell or buy illicit content related to TransferWise.

The discovered mentions could be divided into 2 groups:

- a) Meaningless in terms of obtaining any information for possible improvement of fraud prevention or detection techniques at TransferWise due to the lack of specifications on how to perform the fraudulent operation;
- b) Discouraging other criminals to use TransferWise as they have had unsuccessful experience before.

Unfortunately, the mentions of TransferWise on underground forums were very primitive and did not indicate any emerging or trading behaviour, patterns or occasional waves of criminals the author has observed at TransferWise for the latest year. The author knows in fact that fraudulent actors are evolving and adapting, trying to find loopholes in the existing system and exploit it, and yet lawbreakers are not sharing this information online. This might be because fraudulent actors unlikely to share or even sell any effective method of performing economic crime via TransferWise, as they might steal much more money just executing that scheme if it will be unknown or unpopular for long enough for fraud prevention team to react. Besides, such information may be hidden in the restricted parts of the studied forums, which were out of the scope of this paper.

Considering the time spent on research, analysis of the data and lack of meaningful findings, the author concludes it is not beneficial for TransferWise to perform such research regularly as a stand-alone project. That to say, the hypothesis is not confirmed and does not hold.

To summarize, the outcomes of this study are as follows:

- *Public outcome:* the research proves that TransferWise and similar smaller fintech companies most probably will not benefit from similar research to combat economic crime or enhance fraud prevention or detection within a company.
- *Scientific outcome:* in order to perform cyber crime research of the similar scope, publicly available sources may be insufficient, and a researcher should consider investing a considerable amount of funds and time to gain access to a restricted area of underground communities to obtain meaningful information, which raises financial and ethical constraints.
- *Practical/company outcome:* TransferWise fraud prevention team has considered performing similar research as a stand-alone project, but the study proves it is not worth it.

However, future work may revolve around developing an automated or semi-automated solution (e.g., deep and dark web crawler) to monitor information studied in this paper.

Finally, extensive long-term research of the underground forums can be considered for doctoral studies, which will include surmounting ethical considerations and seeking funding to investigate restricted parts of the forums by paying for the access as well as engaging in the communication and gaining the trust of the underground society. The doctoral studies can allow investing more time and assets to perform the research on a given topic, bringing more fruitful results.