Diving into Open Data in a financial world

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Open Data has been around for a while now. The term “Open Data” appeared in the 80s, but industries have only started to become aware of the concept in the last few years. Open Data promises a long and exciting journey for those who realize its potential. However, as with every new concept, standards have not yet fully emerged and many challenges lie ahead.

What is Open Data?

Open data isn’t a new trend in our economy. The term started to emerge in literature in the 80s, but it was only in 2012 that the Open Data Institute gave a complete definition: “Open Data is data that anyone can access, use and share”. Pretty simple to understand, but what can an Financial Services Industry (FSI) actor do with this kind of data when it is already struggling with its own data? In what way can it benefit from Open Data?

To answer this question, we need to go several years back in time and try to understand where this data comes from and see the potential behind it. Open data is a consequence of technology and social factors.

From a technology point of view, the internet brings people and the economy together, allowing them to purchase almost anything over the internet, and more importantly to exchange thoughts, opinions, and knowledge at a tremendous frequency, relegating epistolary to antiquity. On the social side, a majority of people have a digital life today through platforms like Facebook, and this is certainly not restricted to human beings. Nowadays, sensors from the Internet of Things (IoT) world can enable anything to produce Open Data via a whole host of devices, such as healthcare bands, smart watches or on-board car telematics devices. Even pets can be monitored with GPS tracking solution for example.

Governments are also joining the movement through new e-services—which have made interactions with citizens easier—and also by digitalizing the administration, allowing them to produce figures on almost anything pertaining to both the state and its citizens alike: statistics on criminality, poverty, unemployment rate changes, weather conditions, etc. Today, Open Data is almost everywhere, produced by anything and anyone.

All of this data represents a large mass of information, which can be classified in seven categories: Government and Political Data, Data Aggregators, Social Data, Weather Data, Sports Data, Universities and Research and finally, among the most verbose, News Data.
The potential behind Open Data for the Financial Services Industry

Thanks to its diversity and richness, Open Data can intervene in several operational processes of the Financial Services Industry.

Marketing departments can leverage this type of data through the enrichment of client and prospect databases. Indeed, data coming from social media is a real asset, as it can be used to make client segmentation more accurate and build strong links between loyal clients and prospects. It creates a de facto micro segmentation that is very close to what matters for the client and therefore reduces the risk of clients leaving.

On the other hand, it can also be a good indicator of which clients to avoid, such as people exhibiting objectionable behavior that does not comply with company expectations in terms of social responsibility.

Another valuable application for marketing departments is the monitoring of their e-reputation, which allows companies to better understand their clients, prospects, and market perception. This way, companies can improve their marketing strategy in order to win or retain clients.

As an example, insurance companies can make great use of Open Data provided by governments; crime data for instance, can help in the risk evaluation process by providing a more granular view of the market, and hence more adapted pricing. Weather data are also precious for insurance companies in the context of telematics as well as fraud prevention to correlate with goods damaged due to weather conditions.

From a subscription perspective, Open Data can effectively reduce subscription time thanks to autocomplete. Moreover, updating client profiles could be automated by monitoring changes on social media front ends.

Open Data’s greatest strength is that the more it grows, the more powerful it becomes. Indeed, reusing and mixing various sources lets innovative services and products emerge. The only limit is how businesses can see the data at their disposal being utilized.
Open Data has an extremely high value. Not only does it make access to information easier, but it also helps to create standards that increase the value of data by making it more consistent, hence facilitating inter-operability and aggregation. Banks and insurance companies participate actively in Open Data development thanks to regulatory bodies such as the Securities and Exchange Commission (SEC). This commission requires financial statement information to be submitted in a structured XBRL (machine-readable eXtensible Business Reporting Language) format for Basel III and Solvency 2. This format facilitates analysis and adds value for the public, investors and regulators. Rather than a constraint, such regulation should be considered an opportunity. Thanks to XBRL, not only do companies have access to standards that facilitate their reporting processes—thus reducing their costs—but they can also have access to a more global view of the market and benchmark their competitors based on this public information. The UK is one early adopter of the XBRL format and of the Open Data movement in general. Today, there are approximately 1.9 million UK companies using the XBRL format for filing accounts and tax statements¹. The success of the adoption of XBRL in the UK is due to the use of iXBRL (or inline XBRL), which is a human-readable approach to XBRL that uses tagging with advanced taxonomies to generate XBRL reports. This way, companies can present their accounts using iXBRL in an easily understandable way, instead of having to develop their own extension to integrate XBRL into their tools.

Open Data and client data automated sharing is transforming the Financial Services Industry. It offers start-ups an open door to compete with big retail banks and insurance companies in a market that used to have a really high entry-level barrier. But it is not only about competition. Start-ups also have a lot to bring to major players and collaboration will drive new business opportunities.

Companies are starting to realize the potential behind the use of Open Data, but this is only a first step. A common issue for companies is the dilemma of opening their own data.

As we have seen before, regulators are appearing and pushing for companies to open some of their data. But beyond the legal aspects, what are the benefits of doing so? Many companies are not confident about opening their data, and they have strong arguments for it. The most common one is competitive advantage. There is a fear of letting competitors make money out of their data. Also, data has a high value and companies know it. Many companies make money by selling data, so opening it would represent an initial drop in revenue. But, looking at the UK’s experience with Open Data, we can see that opening data lets standards emerge and facilitates inter-operability and aggregation of data. This is not just true for legal usage; but also when collaborating with partners and suppliers.

Making it to the next level
It is essential to understand that we are entering an era where people care and fear for their privacy. In this context, company transparency will be an asset for company image and the MiData movement is emerging. MiData does not belong in the world of Open Data but is of a very similar mindset. The idea behind it is that a company facilitates users’ access to the personal data collected about them. Doing so helps users to clearly see what data are collected and creates a feeling of trust as users are less prone to think the company only attempts to make money out of their data.

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¹ https://www.xbrl.org/recipe-for-xbrl-success-in-the-uk/
What companies have to realize today is that mindsets are changing, and so is the market. Data is raw value, but what matters most now is how they can extract that value from the data they have at hand. The tendency is driven by innovation and is moving towards producing high value services by extracting and aggregating relevant data.

Most companies entering the world of Open Data do so by starting to release small subsets or samples of their data and we see freemium models emerging where third parties have to pay to access more detailed data. The Data-as-a-Service model is also gaining popularity with Open Data, by selling analysis and high quality services on top of Open Datasets.

One benefit for a company of opening data is getting communities involved. Realistically, a company may have various projects in mind, but only the time and resources for some of them. Releasing data in the open domain can be a strategic move to encourage crowdsourcing by driving the community. As a company, you might have a large vision of what can be done with the data you have, but the budget and resources for some projects only. Projects developed by communities can add extra value to the services already in place but is also an opportunity to get feedback on the quality and structure of the data released. Moreover, crowdsourcing or Open Data competition is the opportunity for a company to attract talent that can be an asset for its team. Finally, it also serves to enhance the company’s visibility and its products because there will be more ways to access the different services it provides.

Getting ready for Open Data

As stated above, data comes from various sources and as such, quality levels are very disparate.

Therefore, only FSI actors with a certain degree of maturity could benefit from this new source of data. Indeed, a strong data management framework should already be in place to ensure a business case. Typically, data coming from the open-data world should be monitored prior to any leveraging to avoid data pain points. Moreover, before any integration into operational processes for production, a data integration project should be deployed by an appropriate profile, such as a data scientist.

Analysis of Open Data and correlation with internal data can be tough. It requires not only specialized human resources, but also material resources such as digital infrastructure or computing power. Each data provider has its own standard data format, therefore data transformations are necessary when integrating it into the company’s system. When using Open Data, a company should always consider the following issues:

- Aggregation
- Normalization
- Clean-up
- Quality control
- Verification of Authenticity
- Validation of terms of use

All of these elements should be integrated into the decision-making process. It is also valid in the context of producing Open Data. Indeed, releasing low quality or inappropriate data could dramatically damage a company’s reputation.

In addition to technical challenges, using Open Data can be a complex task in terms of legislation. We saw earlier that governments are pushing Open Data forward, but the regulatory framework is complex and most individual institutions have their own policies or their own licenses regarding dataset provision.

The major concern are data protection and respect of privacy. Some countries are more permissive than others but the Council of the European Union had many discussions about data protection law and attempt to define the limits for collection and analysis of data. Under EU law, personal data can only be gathered legally under strict conditions and for a legitimate purpose. EU law guarantees that personal information, collected and managed by an organization, must be protected and respect the rights of the data owners. Even though it is not completely harmonized yet, European directives are going toward this direction. Therefore, a user has the right to complain or to obtain redress if its data are misused under European territories.
Conclusion
Open Data is both an opportunity and a challenge. It does not only concern start-ups or small firms. Every sector, such as financial industries, is impacted. Challenges generated by Open Data are not easily solvable, but financial industries are most likely familiar already with many of the concerns.
Involvement in the Open Data ecosystem could be evaluated as follows:
1. Open Data: what is it?
2. I know about Open Data
3. I am aware of the potential of Open Data
4. I have project plans that leverage the potential of Open Data
5. I have the knowledge to perform the correlation between Open Data and my own data
6. I already use Open Data in some products
7. I am opening part of my own data to the Open Data space

As of today, where do financial industries place on this scale? Evaluate where you are and determine your objectives to tame Open Data and make full use of the power it can offer to you.

Sources:
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