RegTech Live: Driving Compliance through Innovation

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Innovation as the new normal

We have had a lot of interesting discussions today and yesterday about all things innovation.

Events like these help to further our understanding about what technologies are available, the benefits and risks associated with their use, and their potential impact on financial services.

It is clear from these discussions that the financial services sector is innovating rapidly. Firms are trying to use more and more technology to increase their competitive edge, whether to defend or to create a position in the market.

There are few, if any, parts of the financial services value chain that cannot be done better, or more efficiently, or with a better user experience than before – there is always room to innovate and improve.

We have seen many institutions that are going through digital transformations, and some that are not. It is clear that in most areas of the market financial institutions who don't innovate will struggle to protect their existing franchise or to develop it further.To the extent that innovation is the new normal for everyone in financial services, this applies also to regulators.

What does this mean?

Regulators who wish to be successful in this digital era also need to innovate so that innovation is part of our business as usual. Innovation has been one of the DFSA's four strategic themes for some time now.

But how are we doing this? Let me start with data.

We are in a period of unprecedented data creation, collection and storage. The World Economic Forum estimates that the world produces 2.5 quintillion (a lot) bytes a day: I won't say how many zeros there are in that. Ninety percent of all data that has ever existed has been produced in just the last two years; stop and think about that.

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According to the European Commission, this year the value of personalised data will be one trillion euros (USD 1.17 trillion).

Data, and its value, are growing every year. As we all know, financial institutions hold a considerable amount of data, and are increasingly finding innovative ways to use and find value in the vast amount of data they hold. Many have referred to data as a new currency or a new type of gold.

Digital Data Strategy

But the value of data is not limited to financial services institutions. The DFSA collects, holds and uses a considerable amount of data.

Like all businesses, we can do better in how we hold and use data. This has resulted in the DFSA's digital data strategy. Some of our goals will seem simplistic to some of you – for example, the idea that data should be input once. But this is important for firms looking to set up in the DIFC; how many touch points do they need to do that?

We are looking to:

- Better define our data needs – we need to ask ourselves do we need all data we collect? Do we have any blind spots? What is the quality of data we hold - can it be improved?

- Digitise more processes, where possible, not just because we can but because it adds value; and

- Remove unnecessary and eliminate duplicative, or obsolete processes.

This is not a small project, it will take time, and we need to evaluate continuously what we do next. As a regulator, we are not aiming to remove technical judgement exercised by staff. The exercise of judgement will still be an important part of our supervision and other activities.

Such a project also requires us also to consider the Data Protection Regulation in the DIFC and other laws that might have an impact on what we are planning to do. Localisation of data is an issue, which the DFSA with its one location can address, but which poses a challenge especially to the many globally-active firms in the DIFC.

Payments

Another thing that is changing globally is the payments landscape.

Consumers want speed and convenience, and are demanding real time access to payment platforms. They don't want things to be complicated, they want a seamless payment experience.

Firms are providing different digital payment services to their customers. They are accelerating the shift from cash to non-cash payments, which also increases the amount of data being created.

But digital payments do not come without risk, and many regulators are making changes to their regulatory regime to address this. The DFSA is one of those regulators, and earlier this year we introduced a comprehensive Money Services regime.

This regulatory framework allows for a wide range of digital payment activities including, for example:

- Remittances and money transfers;
- Stored Value and digital wallets;
- Payment Initiation Services – initiating a payment at a user's request, from an account held with a different payment service provider; and
- Account Information Services – providing a view of accounts held by a user with different providers through one interface.

We have had a considerable amount of interest from firms wishing to operate in this regime, and have seen a lot of technology involved in the provision of these types of applications, some of which we have heard about in the past two days. Such as:

- The use of "near-field communication technology," which is not necessarily new (think Hong Kong and the Octopus card, London and the Oyster card, or Dubai and the Nol card) but has gained popularity in recent years due to the demand for quick and easy payment processes, not to mention the impact of the pandemic where contactless payments have become the new normal and, in some cases, the only payment method available. This is a trend we do not expect to be reversed; and
- Biometrics involving payment verification via fingerprint scanners, or facial recognition. We are also seeing the potential for heartbeat analysis and vein mapping, and other more esoteric technologies. With the rise of identity theft and identity fraud, biometric authentications that provide a safe, accurate and efficient solution are becoming increasingly popular.

It goes without saying that the desire of customers for convenience can be at odds with security. This is something we are very focused on as a regulator.

We see the cloud, APIs and biometrics as the foundational technologies for the new innovative world. On these foundations, solutions using big data analytics, using Artificial Intelligence, using Machine Learning, and using Distributed Ledger Technology can be built.

Machine learning and fraud

We have heard from a few industry practitioners about the types of technologies that can help firms detect potential threats and fraud.

Artificial Intelligence and Machine Learning are some of the tools we are seeing used more and more in the financial sector. They are helping firms to manage and understand ever-growing data sets, and to identify effectively previously undiscovered patterns, which is critical for flagging potentially suspicious behaviour. If done properly, Machine Learning can distinguish between legitimate and fraudulent behaviours while adapting over time to new, previously unseen, fraud tactics.

Just think about when you receive a text from your bank asking if a transaction was made by you? This text message was not sent by a bank employee but rather software used by the bank which has interpreted patterns in your activity and come up with a warning about potential anomalies.

It is important that there is a balance between technology used and human intervention to maintain smart, real-time analysis and actionable insight. Think of technology becoming the front line and human expertise as a second line of defence. Machine Learning algorithms can produce unexplainable results, which is a live issue in the AI/ML community, especially from an ethics viewpoint. As with all systems, garbage in, garbage out remains a real risk.

Global community of regulators

I don’t think that we would say we are experts in all areas, and that is why we look to our colleagues internationally to support our learning in this area.

Yesterday, Bryan Stirewalt talked about our role in the Global Financial Innovation Network (GFIN). We are part of the RegTech work stream as well as the GFIN Board.

In the RegTech work stream, we discuss regulatory technology developments with other regulators. We find out how they engage with their RegTech communities, what events they have carried out and what has worked well. When have tech sprints and hackathons been useful? When are information-sharing sessions good? We hope that our participation in this work stream will help us to keep in step with the innovative and technological changes occurring in the markets and firms we regulate.

Conclusion

This brings me back to my introductory remarks; as innovation is the new normal, how do we make sure that innovation is our business as usual?

It's clear we need to be technology-informed. This doesn't mean we will promote or endorse any technology or vendor, but we need to talk to firms, whether regulated or not, as we must be knowledgeable about what technologies the firms we regulate are using.

We must also look at the way we operate. We need to ask if we have the right people with the right skills to keep pace with technological developments, skills that haven't necessarily been needed by regulators before, partly because certain technologies haven't been available.

We can and will, support the DIFC innovation ecosystem that Salmaan has talked about, regulating where appropriate and not regulating where it is not needed. Being a part of this thriving ecosystem is exciting and a challenge for us; it helps us address some of the innovation challenges we face ourselves as an organisation; but importantly, we can be part of building something new and different.

Thank you.