

INNOVATIVE BUSINESSES' VIEWS ON THE REGULATORY ENVIRONMENT AND REGULATORY SUPPORT

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Contents

| Executive summary | 4 |
|---|----|
| Background and methodology | |
| Research findings | 4 |
| Innovative businesses | |
| Regulatory environments | |
| The effect of regulatory environments on innovation | 5 |
| Introduction and methodology | 7 |
| Background and objectives | 7 |
| Methodology | 7 |
| Case studies | 8 |
| Innovative businesses | 9 |
| Overview of innovation | 9 |
| Examples of innovation | 9 |
| Regulatory environments | 12 |
| Types of engagement with regulators | 12 |
| Direct engagement | 12 |
| Indirect engagement | 13 |
| Views on the regulatory environment | 15 |
| Accessibility | 15 |
| Suitability | 17 |
| Regulatory burden | 18 |
| The effect of regulatory environments on innovation | 20 |
| Views on the effect of regulatory environments on the ability to innovate | 20 |
| Accessibility | 20 |
| Suitability | 22 |
| Administrative burden | 24 |
| Views on how regulatory environments could facilitate innovation | 25 |
| Accessibility | 25 |
| Suitability | 26 |
| Administrative burden | 28 |
| Appendices | 29 |
| Appendix A: Recruitment screener | 29 |
| Appendix B: Interview topic guide | 37 |

Executive summary

Background and methodology

As set out in its White Paper on Regulation for the Fourth Industrial Revolution, the Government plans to transform the UK's regulatory system to support innovation while protecting citizens and the environment. This research has been commissioned by the Department for Business, Energy and Industrial Strategy to provide the department with a deeper understanding of the regulatory experiences of innovative businesses, including:

- The issues they face with existing regulatory frameworks in terms of innovation;
- The effect of engagement with regulators on innovation; and
- The aspects of engagements that are beneficial or counterproductive to innovation.

Between March and June 2019, IFF Research conducted qualitative interviews with 48 innovative businesses that had engaged with a regulator in the previous 12 months. To qualify as an innovative business, a business had to either be a known disruptor or meet the definition used in the UK Innovation Survey.¹

Research findings

Innovative businesses

The businesses interviewed demonstrated a wide variety of types of innovation. Examples include the introduction of new internal processes; the introduction of new production techniques; the improvement of existing goods and services; and the introduction of new goods and services.

The degree of innovation varied considerably amongst the businesses interviewed. Some innovations stood out as very innovative because they were original concepts that had disrupted markets or forged new markets. Less extreme innovations also featured, including the improvement of internal processes and the refinement of products.

The primary motivation behind innovation for all the businesses interviewed was growth; as well as growing or increasing markets, this also included increasing efficiency and improving the quality of products to increase sales.

The businesses interviewed were often at different stages of the innovation process: some were planning innovations, some were mid-implementation, and some had recently completed an innovative project. Businesses emphasised that innovation was an ongoing process; making incremental improvements to the quality of products and the efficiency of processes was often the norm.

¹ 'Known disruptors' are businesses that are known to be applying new technologies and business models to disrupt existing sectors, or to create new sectors altogether. Prior to the start of qualitative fieldwork, BEIS provided IFF Research with a list of disruptor businesses. This list was built using a variety of sources, including Deloitte's Technology Fast 50, the FT Future 100 UK and the Queen's Awards for Innovation 2018.

Regulatory environments

All businesses had engaged with their regulator(s) at least once over the last 12 months. Nearly all had engaged with them both directly and indirectly.

Indirect engagement with regulators, such as visiting their website or referring to a handbook, was typically the first port of call when businesses wanted to clarify regulations or get guidance to understand changes to regulations.

Aside from regulator websites and physical resources, the businesses interviewed also often engaged indirectly with regulators through administrative requirements, like reporting via a portal. A few businesses had engaged with regulators through third parties for example trade associations, consultants and lawyers.

The businesses interviewed typically contacted their regulator directly when unable to find the information themselves. Most direct engagement with regulators had taken place over the phone. However, several utilised email and some had engaged with regulators face-to-face during meetings, seminars and presentations.

Businesses were predominantly positive about the regulatory environments they operate in. They often expressed general satisfaction with their regulators and regulation, but also often identified areas for improvement. A few businesses had mainly negative views on their regulatory environment.

Whether businesses had positive or negative views on their regulatory environment, discussions with businesses about their regulatory environment typically centred around three key themes:

- Accessibility;
- Suitability; and
- Administrative burden.

Most businesses said that they had no issues in terms of the accessibility of information and guidance, considered their regulatory environment to be appropriate for their business model and their consumers, and did not think administrative requirements were too burdensome.

However, there were some businesses that thought otherwise and suggested that changes should be made. More disruptive businesses were more likely to say that they had issues with the suitability of their regulatory environment, while smaller businesses were more likely to say that the administrative requirements of their regulatory environment were burdensome.

The effect of regulatory environments on innovation

Most of the businesses interviewed felt that their regulatory environment had limited effect on their ability to innovate. Amongst those that thought it did have an influence, there was a relatively even split between the proportion that thought their regulatory environment had acted as a hindrance and the proportion that thought it had been helpful.

Across all businesses interviewed - including those that felt their regulatory environment had no effect, those that felt it was hinderance and those that felt it was helpful - the reasons why these opinions were held can be categorised into the three key themes:

- Accessibility;
- Suitability; and
- Administrative burden.

The accessibility of useful and timely information about regulatory requirements, guidance and support had a considerable bearing on how businesses viewed the effect their regulatory environment has on innovation.

Businesses that had positive experiences of accessibility explained that being able to quickly and easily obtain information and guidance was valuable as it enabled them to establish how an innovation should be approached in order for it to be compliant with regulations. Conversely, businesses that had experienced difficulties with accessibility discussed how this made the process of innovation challenging; causing delays and, in some cases, causing innovative activity to be abandoned.

Many of the businesses that thought improvements should be made in terms of accessibility expressed a desire to have more information and clearer information about regulatory requirements from regulators. Some businesses felt that more active support from their regulator(s) regarding innovation would also help. These businesses were often unclear about what this would look like in practice but expressed that being able to easily access advice and guidance from their regulator would help.

Perceptions of the suitability of regulatory requirements played a significant role in shaping the views businesses had on the influence of regulatory environments on innovation. Most businesses considered their regulatory environment to be appropriate for their business models and objectives, and so felt able to freely innovate. Furthermore, a few businesses said that their regulators had helped them with innovation projects by creating flexibility in existing regulations, allowing them to experiment with new products and processes in a safe environment.

Businesses that did not think that their regulatory environment was suited to their business model and objectives often highlighted this as the fundamental challenge when trying to innovate. These businesses were generally seeking to innovate in more novel ways, creating products or improving them to such an extent that they would push the boundaries of existing markets or create new markets unto themselves.

Consequently, such businesses were also pushing the boundaries of existing regulatory environments. With products that do not seamlessly fit with existing regulations, these businesses found the innovation process to be challenging; creating additional work, causing delays and, in some cases, stopping innovations altogether. It was suggested that regulatory frameworks should become more flexible to facilitate their innovations, shaping to suit the needs of businesses rather than requiring businesses to shape themselves to suit regulatory environments.

Some businesses said that their efforts to innovate are affected by the administrative requirements set by regulators. These businesses said that such requirements made innovation challenging because the time and financial costs of meeting them meant that there were fewer resources to spend on innovation. Three businesses suggested that the administrative burden of regulation could be mitigated by streamlining processes or making reporting requirements less frequent.

Introduction and methodology

Background and objectives

As set out in its White Paper on Regulation for the Fourth Industrial Revolution, the Government plans to transform the UK's regulatory system to support innovation while protecting citizens and the environment. This research has been commissioned by the Department for Business, Energy and Industrial Strategy to provide the department with a deeper understanding of the regulatory experiences of innovative businesses, including:

- The issues they face with existing regulatory frameworks in terms of innovation;
- The effect of engagements with regulators on innovation; and
- The aspects of engagements that are beneficial or counterproductive to innovation.

Methodology

Between March and June 2019, IFF Research conducted qualitative interviews with 48 innovative businesses that had engaged with a regulator in the previous 12 months. Table 2.1 presents how these interviews breakdown in terms of sector and business size.

A qualitative approach was adopted because it is an effective way of capturing the experiences and views of innovator businesses in detail. Qualitative interviews allow for nuances, complexities and subtle signals to be captured and unpicked.

It should be noted that the findings of in-depth qualitative interviews should not be considered representative of the views or behaviours of the general UK business population.

Table 2.1: Profile of qualitative interviews

| | | Number of employees | | | | | |
|--------|---------------------|---------------------|----------|----------|----------|------|-------|
| | | 1 to 9 | 10 to 20 | 21 to 49 | 50 to 99 | 100+ | TOTAL |
| | Financial services | 2 | 3 | 2 | 3 | 2 | 12 |
| | Legal services | 3 | 4 | 3 | 0 | 1 | 11 |
| | Insurance | 4 | 1 | 1 | 0 | 1 | 7 |
| Sector | Manufacturing | 3 | 1 | 1 | 0 | 2 | 7 |
| Se | Transport/logistics | 4 | 2 | 0 | 0 | 0 | 6 |
| | Energy | 2 | 0 | 0 | 1 | 0 | 3 |
| | Medical research | 0 | 0 | 0 | 0 | 1 | 1 |
| | Telecommunications | 0 | 0 | 0 | 0 | 1 | 1 |
| | TOTAL | 19 | 10 | 7 | 4 | 8 | 48 |

To qualify as an innovative business, a business had to either be a known disrupter or meet the definition used in the UK Innovation Survey.

Disrupters are businesses that are known to be applying new technologies and business models to disrupt existing sectors, or to create new sectors altogether. Prior to the start of qualitative fieldwork, BEIS provided IFF Research with a list of disruptor businesses. This list was built using a variety of sources, including Deloitte's Technology Fast 50, the FT Future 100 UK and the Queen's Awards for Innovation 2018. Eight interviews were conducted with disruptor businesses.

The UK Innovation Survey defines innovative businesses as those that have introduced new or significantly improved goods or services; new or significantly improved processes for producing or supplying goods or services; or new practices for organising procedures, work responsibilities or external relationships. IFF research acquired a sample from commercially available business databases and screened them on this basis. Forty interviews were conducted with businesses that met the UK Innovation Survey definition.

Case studies

Case studies are used throughout this report to illustrate the experience of individuals businesses in different sectors. The case studies include:

- Business A: A peer-to-peer lending platform;
- Business B: A manufacturer of packaging;
- Business C: A pharmaceutical business;
- Business D: An online mortgage broker;
- Business E: A high street solicitors' practice; and
- Business F: A telecommunications business.

Innovative businesses

This chapter discusses the innovative activities of the businesses interviewed. It focusses on the different types of innovations undertaken, the scale of innovations and the motivations behind them.

Overview of innovation

The businesses interviewed demonstrated a wide variety of innovation. Examples include the introduction of new internal processes; the introduction of new production techniques; the improvement of existing goods and services; and the introduction of new goods and services.

In addition to various forms of innovation, businesses' activities varied considerably in terms of the degree of innovation. Some stood out as very innovative because they had had disruptive traits; creating original products and services and, in a few cases, forging new markets. The innovations of other businesses were less disruptive, typically involving the improvement of internal processes and products.

The primary motivation behind the innovations of all the businesses interviewed was growth. For example, businesses introduced new internal processes and production methods to increase efficiency, improve the quality of existing products to increase sales and designed and developed new products to diversify or enter new markets.

The businesses interviewed were often at different stages of the innovation process; some were planning innovations, some were mid-implementation, and some had recently completed an innovative project. Many businesses emphasised that innovation was an ongoing process; for them, making incremental improvements to the quality of products and the efficiency of processes was the norm.

Examples of innovation

One of the most common forms of innovation mentioned by the businesses interviewed was the **development or acquisition of new IT systems**. This type of innovation was typically motivated by a desire to improve the efficiency of internal processes. For example, the solicitors' practice presented in Figure 3.1 had invested in cloud-based case management software. This software has improved the service they offer to clients by increasing the speed at which they can conduct tasks and transactions. Meanwhile, a business in the transport and logistic sector had recently invested in 'digicard' technology that allows them to track driver working hours and performance.

"We had to buy some software for the computer to download the driver's 'digicard' and it stores up to 5 years of memory on it. We do it every 30 days, we download the card and we have to download the machine in the truck." (Transport/Logistics, 1-20 employees)

Figure 3.1: Business E

A high street solicitors' practice.

The business has been operating for a decade and has six members of staff.

The business mainly works in residential conveyancing and wills & probate, but also does some employment law, family law and occasionally does commercial property work. The business has recently innovated by expanding their legal service offering and by investing heavily in technology to help improve efficiency and service quality. The business has looked into acquiring AI software, but were unable to do so due to a lack of funds. The business attributed this to the high costs of regulatory compliance.

Many businesses had introduced new products. This included both additional goods or services and, for a handful of businesses, the first goods or services they had developed.

For example, the business involved in medical research presented in Figure 3.2 had recently entered into pharmaceutical production and were in the process of bringing a new cancer drug to market. Meanwhile, as illustrated in Figure 3.3, a mortgage broker had introduced an additional service which allows customers to enter the details of their mortgage and then be notified when if it is advantageous for them to switch mortgages.

Figure 3.2: Business C

A pharmaceutical business.

The business has been operating for 18 years and has around 450 employees.

The business has innovated by shifting from a focus on research to a focus on drug development. This shift has caused them to upscale the number and quality of lab personnel and introduce new ways of working.

The business has recently created a new drug candidate which they hope will go to live trial soon.

Figure 3.3: Business D

An online mortgage broker: one of the first of its kind in the UK.

The business has been established for around 2 years and has almost 100 employees.

The business' main innovation is its technology platform. The business has developed an algorithm that searches through more than 11,000 mortgage products to identify a product that matches the needs of customers.

Since its inception the business has innovated by introducing an additional service which monitors customers mortgages and sends alerts when it is advantageous for them to switch to another mortgage. The business would like to innovate further by introducing another service: conducting eligibility checks in-house.

Some businesses had made **improvements to existing products or services**. This was undertaken to improve the quality for end users, with the aim to stimulate demand and growth. For example, the FinTech business presented in Figure 3.4 had made improvements to the

underlying algorithms and user interface of their peer-to-peer lending platform. Furthermore, the telecommunications business presented in Figure 3.5 had invested in new technology and materials to enable them to increase the speed of their internet service.

Figure 3.4: Business A

A peer-to-peer lending platform: one of the first of its kind in the UK.

Since 2013-14 the business has lent £280m across 12,000 mortgages. The business has 62 employees and is looking to grow this to 105 over 2019.

The business' main innovation is its technology platform; it connects investors with landlords that are looking to borrow money for their buy-to-let mortgages.

Since the launch of the platform, improvements have been made to the underlying algorithms and the user interface.

Figure 3.5 Business F

A telecommunications business.

The business has been established for 7 years and has around 300 permanent employees.

Recent innovations of this business have been focused on the improvement of existing services and the reduction of costs. This has been achieved through investment in new higher-grade materials and technology. For example, the business has improved their bandwidth by buying new fibre cables and new routers. This has also been done to enable access to BT's Openreach infrastructure, which will mean they no longer have to build their own networks.

Some businesses had **developed or acquired new machinery or equipment.** This was generally undertaken to improve production methods and reduce costs. For example, as illustrated in Figure 3.6, a manufacturer of packaging had recently mechanised production. The business had introduced a machine that assembles products and had plans in place to install a second machine. This innovation had a significant positive impact on output and efficiency as assembly had previously been carried out manually.

Figure 3.6: Business B

A manufacturer of packaging.

The business has been established for 10 years and has 40 employees. The business has innovated by improving their products in terms of performance and environmental impact. This has been achieved through internal R&D.

The business has also mechanised production. They now have a machine that assembles the products, which has drastically improved efficiency. They have plans to introduce another machine soon.

"We used to manufacture manually but, now we have a machine to put the products together. This has drastically improved efficiency, the machine helps us to deal with fluctuations in demand e.g. there is no need to hire more staff."

Regulatory environments

This chapter explores the regulatory environments in which the businesses interviewed were operating. The chapter begins by discussing the interactions that businesses have with regulators and regulation in general, with a focus on how and when they engage with regulators and regulatory information. The chapter then moves on to explore the themes that emerged from discussions with businesses about their relationships with regulators and their experience of regulation.

Types of engagement with regulators

Direct engagement

Nearly all businesses had engaged with their regulators directly in the last 12 months. Businesses typically contacted their regulator directly to clarify regulations and to understand regulatory changes. They explained that they often contact the regulator directly if they are unable to find the information themselves, such as by visiting the regulator's website. For example, a business that provides insurance services and a solicitors' firm both explained that they first consult the website but, if in doubt, they will contact the regulator by phone.

I phoned them recently; we were having an internal debate and trying to work out what we thought the regulator would want us to do ...we always want to remain complaint so the first port of call is to read the manual or consult the website but if we have any doubt we would phone the [regulator] and ask. (Insurance, 1-20 employees)

[I call them] if I can't find an answer [online]... it was probably late last year. We were looking at potentially marketing for some work and possibly referring that out to other firms of solicitors and I was trying to clarify the position in terms of regulation of that activity. (Legal Services, 1-20 employees)

Most direct engagement with regulators had taken place over the phone. However, several utilised email and some had attended face-to-face meetings, seminars and presentations. Most businesses contacted their regulator using a variety of these methods, depending on personal preference and the circumstances.

If we have a question it is direct contact. There are phone numbers and email addresses by which we can approach the [regulator] for small issues. (Medical Research, 100+ employees)

I like to speak with somebody in person as email takes so long to reply, going backwards and forwards. (Manufacturing, 1-20 employees)

Figure 4.1: Business C

A pharmaceutical business.

The business engages directly with the regulator either by phone or email a few times throughout the year when they have a specific query. They sometimes have face-to-face contact, for example if they want to run a clinical trial. Indirect contact is far more frequent – written guidance would always be the first port of call. Generally they find the guidance to be useful.

"Our first port of call is understanding through online resources what the regulations are — what is there and said at a pan-European level and said at a national level by the regulator, so we are diligent in keeping up to date with the regulations...on a weekly basis or almost a daily basis."

Several businesses contacted their regulator prior to introducing a new product or service to ensure it would comply with regulations. For example, several businesses in the financial services sector explained that they had to go through an authorisation process before they could launch a product to the public. During this phase these businesses had a lot of direct interaction with their regulator about what their plans were and what they needed to demonstrate to achieve authorisation.

For most businesses, direct contact with the regulators did not occur very often, with most stating it tends to be a few times a year. However, a couple reported that they engage with their regulator via email about once a month – either the business contacting the regulator regarding a specific query or the business receiving updates from the regulator on upcoming changes.

We engage directly about 2 or 3 times a year; you don't often have to go to them because the more you practice the more times you come across the same thing and you know the answer. (Legal Services, 21-49 employees)

Indirect engagement

Nearly all businesses had engaged indirectly with their regulator over the last 12 months. As with direct engagement, the reason businesses engaged indirectly with their regulator was typically to clarify regulations and get guidance so to understand any changes in the regulations they need to comply with.

Most had done so by accessing online resources, predominantly the regulator's website, with several highlighting that this would be their first port of call. For example, the telecommunications business presented in Figure 4.2 visits the regulator's website to obtain information about upcoming changes and industry news, while a law firm discussed how they check online resources and subscribe to newsletters to keep abreast with regulatory changes.

Checking online resources and also subscribing to the latest newsletters which I think are quite useful in terms of updating us as to what is going to happen in the future, like the transparency rules that have recently come in ... those online resources are very useful from the point of view of keeping up to date. (Legal Services, 1-20 employees)

Figure 4.2: Business F

A telecommunications business.

The main touchpoint the business has with the regulator is the renewal of a license that enables them to operate in the industry.

The business also often interacts with the regulator indirectly by using their website or portal to obtain information about upcoming changes and industry news.

The business has had no direct engagement with the regulator before.

"I look at their website to look for information about anything coming up, and changes, and I request through the portal for news updates that you can download."

"The way I've been getting information has been the way I would quite happily get it – through the portal or through their website."

Some had also engaged with regulators through their administrative requirements, such as reporting and applying for licences. A couple mentioned using the FCA's Gabriel system (for example, the FinTech business presented in Figure 4.3). Other examples include law firms submitting Anti-Money Laundering reports and businesses in the energy sector renewing their operating licence.

Figure 4.3: Business A

A peer-to-peer lending platform.

They are regulated in two key areas: the management of client money and the operation of an electronic system for lending.

Their main touchpoint with the regulator is through reporting. This is online reporting on a monthly basis. They had a lot of direct interaction with regulators in the initial authorisation phase, but now only have intermittent direct contact. Within the last year the business has had a follow up meeting with the authorisation team.

The business is a member of a trade association. This is used to develop best practice in the industry but also as a means to interact with the regulator.

A few businesses had engaged with regulators through third parties, like trade associations, consultants and lawyers. The consensus among this group was that it was better to engage with regulations through experts as they could provide reliable interpretation and clear guidance.

For example, a business in the financial services sector explained that they will contact their lawyer for clarification if information provided by the regulator is unclear. Meanwhile, one business offering insurance services felt that their regulator's online handbook can be difficult to understand, resulting in the need to sometimes employ a firm of lawyers to provide interpretation.

Figure 4.4: Business D

An online mortgage brokers.

For matters concerning day-to-day operations, the business typically interacts with their regulator indirectly through a trade body and by accessing regulatory information available on the regulator's website.

The business has only had a handful for direct interactions with their regulator. These interactions have concerned specific aspects of regulation, including consumer protection and lending licenses. The business came away from these interactions frustrated as they didn't feel as though their regulator provided clear guidance and have been slow at getting back to them on some of their gueries.

For some businesses, indirect engagement was more frequent than direct engagement. Whereas most only engaged directly a few times a year, indirect interactions often took place on a monthly or weekly basis.

Views on the regulatory environment

The businesses interviewed were predominantly positive about the regulatory environments in which they operate.² They often expressed general satisfaction with their regulators and regulation, but also often identified areas for improvement. A few businesses expressed mainly negative views on their regulatory environment.

Whether or not businesses held positive or negative views towards their regulatory environment, discussions with businesses typically centred around three key themes: accessibility, suitability of the regulation and administrative burden.

Accessibility

Ease of accessibility

Many businesses reported that they find it easy to contact regulators and access regulatory information. Regulators were generally said to be responsive to direct engagement and online resources were described as useful. For example, the business that conducts medical research presented in Figure 4.5 explained that it is straightforward to set up a face-to-face meeting with the regulator.

² This is based on the findings of 48 in-depth qualitative interviews and should therefore not be considered representative of the views of the general UK business population.

Figure 4.5: Business C

A pharmaceutical business.

The business acknowledged that the pharmaceutical industry has a strict regulatory environment but felt this is necessary for public health.

"I think the balance is pretty fair. It is important that a business in pharmaceuticals does have strong regulation. History has taught us that when regulation isn't there, there can be pretty severe consequences for public health"

The business explained how the regulator was easy to engage with and was communicative about regulatory requirements.

"It is very easy, we send an email saying we would like to have a meeting and this is what we want the meeting to be about and they came back and said we would be happy to meet on this basis."

However, some said that they had difficulty contacting regulators, with experiences of them being slow at responding to direct contact and regulatory information being hard to find. For example, several businesses discussed how regulator websites are difficult to navigate.

It is extremely difficult [to navigate] and I try not to go on there [regulator's website], it is like a minefield...virtually impossible. There is too much information, that is number one, so if they could cut down some information...You get one link and that takes you to another fifty links and that takes you to another hundred and you are all over the place. (Transport/Logistics, 1-20 employees)

Helpfulness of information

Some businesses reported that advice from regulators and the regulatory information available is useful and provides clear guidance, helping them to get jobs done (for example, reporting and making business decisions and strategies). The following Case Study provides an example of this.

Figure 4.6: Business F

A telecommunications business.

The business was happy with the regulatory environment it operates in. It was felt that the regulator provides useful information and helps the business to undertake projects by working with other organisations on their behalf. Furthermore, it was stated that the regulatory environment creates a level playing field.

"The telecoms industry seems to work pretty well; everybody plays by the same rules, which is the way to do it, and if we need access to certain things, then the regulator would appear to be working with the other industry regulators to help us to get to it – such as getting the Department for Transport to help us with access to street works, and so forth."

However, others reported that regulatory information was unhelpful; it was said to be unclear and too open to interpretation. These businesses felt that clearer guidance is needed, for example a couple of businesses in the financial services sector highlighted they would like a more definitive answer from the regulator with regards to whether or not something is acceptable.

A lot of the time when the [regulator] addresses an issue they are not extremely prescriptive. That means that lenders can find ways around some of the rules. On this issue we would really like some clear guidelines on what lenders can do to improve the situation. (Financial Services, 50-99 employees)

Unfortunately with the [regulator] you tend to find they say 'we recommend you do this', but 'this' can be that far ranging...if you get unscrupulous individuals they will try and push it to the absolute limits and the broadest terms of what the [regulator] says. [I would like it] If there were clearer terms and they said it's absolutely this. (Financial Services, 1-20 employees)

A couple of businesses had experienced inconsistency in the information provided by their regulator, making implementing the regulation more difficult. For example, a business that produces insulated packaging explained that the information provided can vary based on which regulatory inspector they are speaking to.

With the [regulator] in terms of how they have implemented the regulations, I would say that they haven't always got a clear message for the companies they are regulating. Quite often you can have one inspector that says one thing is okay and another inspector that says that it isn't okay. I think the regulations are great and obviously it is beneficial for us, but the implementation has been a bit of a grey area. (Manufacturing, 21-49 employees)

Suitability

Many businesses felt that the regulation they need to comply with was appropriate for their business model and deemed it necessary as it put protections in place for consumers. For example, a business involved in medical research said their regulatory environment was highly appropriate because that it ensured products were safe to use. In addition, the FinTech business portrayed in Figure 4.7 said that regulation puts appropriate protections for consumers and barriers to entry in place.

Very appropriate because we are handling a lot of client money and we have a responsibility to maintain the use of that client money. (Legal Services, 1-20 employees)

Figure 4.7: Business A

A peer-to-peer lending platform.

Overall, the business was happy with the regulatory environment it operates in. This is because of positive experiences of engaging with the regulator and because it was felt that the regulator enforces regulation that puts appropriate protections for consumers and appropriate barriers to entry in place.

"The regulatory environment for us has actually been very positive because the concerns I have for the industry is contagion risk - so this is people being able to enter the market too easily and without the adequate controls and process and customer care required in this space. The regulation that is required as a hurdle there helps to manage the contagion risk. "

However, some businesses felt that their regulatory environment was inappropriate. These businesses tended to be those that were innovating in more disruptive ways, for example by creating original goods and services and, in some cases, new markets along the way. These businesses felt that the regulation they needed to comply with was not suited to their business models and products because such regulations were not intended for them. Instead they were designed for existing goods and services and tired-and-tested business models. The effects of inappropriate regulatory environments on innovation is explored in the next chapter.

Not that appropriate as it seems to be a one size fits all approach and haven't really considered how a business like mine operates (Energy, 1-20 employees)

Regulatory burden

Some businesses commented that their regulatory environment is not burdensome. They simply view regulation as something they have to adhere to and do not view it as too onerous.

Generally we're fairly comfortable. Legal services has always been a fairly heavily regulated sector, and probably in the last decade or so they've become more flexible about the way that they operate, partly because they're adapting to changes in the market. The rules are less rigid than they used to be. We don't see it as too burdensome. (Legal Services, 100+ employees)

I feel fairly relaxed and don't feel constrained in any way by the regulators. (Transport/Logistics, 1-20 employees)

However, as demonstrated in Figure 4.8 below, several businesses felt that having to report to regulators and prove compliance was burdensome, creating additional work and expense. This was particularly felt among smaller businesses.

I'm very much a supporter of compliance. That said, I think we're over-regulated. The time and resources for a business this size are an immense burden. (Legal Services, 1-20 employees)

Some of the regulations that we had to comply with when we first started with this process were a little bit onerous and time consuming. (Insurance, 1-20 employees)

Figure 4.8: Business E

A high street solicitors' practice.

The business felt that regulation provided consumers with sufficient protection but identified some aspects of regulation that have a detrimental effect on the business.

For example, the business mentioned that regular changes to regulation create considerable additional work and therefore costs, some changes to regulation have reduced barriers to entry to the market and subsequently increased competition and the cost of membership was considered too expensive.

"There are changes by the regulator [to indemnity insurance] that should not be coming in and it's likely to decimate the High Street legal provision for the members of the public as it currently exists."

The effect of regulatory environments on innovation

This chapter explores the influence that regulatory environments have on the efforts of businesses to innovate. The chapter begins by discussing the perceived effect that regulatory environments have had on past attempts to innovate, and then moves on to cover how businesses think regulatory environments need to change to facilitate innovation more.

Views on the effect of regulatory environments on the ability to innovate

Overall, most of the businesses interviewed felt that their regulatory environment had no effect on their ability to innovate. Amongst those that thought their regulatory environment had an influence, there was a relatively even split between the proportion that thought their regulatory environment had acted as a hinderance and the proportion that thought it had been helpful.

Across all businesses interviewed - including those that felt their regulatory environment had no effect, those that felt it had been a hinderance and those that felt it had been helpful - the reasons why these opinions were held can be categorised into the 3 key themes: accessibility, suitability and administrative burden.

Accessibility

The accessibility of useful and timely information about regulatory requirements, guidance and support had a considerable bearing on how the businesses viewed the effect their regulatory environment has on innovation. This was equally the case across the piece, regardless of sector, the type of business, and the type of innovation undertaken.

Businesses that had positive experiences of accessing information, guidance and support from their regulators often identified this as having played an important role in implementing innovations. It was explained that being able to quickly and easily obtain information and guidance was valuable as it enabled them to establish an understanding of how an innovation should be approached in order for it to be compliant with regulations. This was highlighted as important as it gave businesses direction, enabling them to innovate efficiently and removing the risk of creating or improving a product that cannot be brought to market.

For example, the FinTech business presented in Figure 5.1 explained how engagement with their regulator at the outset of creating a new product had been helpful as it provided them with step-by-step instructions on what they needed to do and what documentation they needed to provide in order to get their product authorised. Meanwhile, a business involved in medical research (presented in Figure 5.2) explained how their regulator provides guidance about clinical trials which enables them to improve their processes and avoid mistakes made by their peers in the past.

Figure 5.1: Business A

A peer-to-peer lending platform.

The regulator was felt to have played an important role in the development of the business' technology platform. The regulator was said to be helpful during the authorisation phase as they provided clear instructions on what documentation the business needed to provide.

"If I was setting up a business from zero, looking at the requirements outlined by the [regulator] are very useful to make sure that you have your act together with the business...They really were focused on how to make this industry work and literally did have a 3-page check list they expected to see"

Figure 5.2: Business B

A pharmaceutical business.

The business thought that their regulatory environment has been beneficial to innovation. This is partly because their regulator is good at providing advice and guidance relevant to their innovations:

"They are reviewing thousands of clinical trial applications and they see things that go wrong and work well. If they have some good advice of a general nature that we think we have overlooked or something another company did where there were a lot of side-effects and we may want to bring in monitoring to make sure we don't get a similar reaction, they will give that feedback"

Businesses that had experienced difficulty accessing information about regulatory requirements, guidance and support from their regulators identified this as a significant challenge when trying to innovate. These businesses discussed how being unable to quickly and easily obtain clear information, and in some cases being unable to obtain any information, meant that it was difficult to develop an understanding of whether their innovations were compliant with regulations and what needed to be done to achieve compliance.

For example, the packaging manufacturer presented in Figure 5.3 explained how they have been unable to get a clear answer from their regulator about if and how regulations differ for different product types. This has resulted in the business feeling unable to tailor packaging solutions to suit different customers.

Figure 5.3: Business C

A manufacturer of packaging.

This business had contacted the regulator several times to clarify what temperature specific pharmaceutical products should be stored at. However, the regulator said that they are unable to provide this information because it would give the business a commercial advantage. Consequently, the business has been required to assume a 'worst case scenario' across all their packaging solutions.

"When you call up the regulatory bodies and you say 'look, what do you want us to tell our customers? Because we want to make sure we're doing this right', they tend to say 'we can't help you because it would give you a commercial advantage.""

Suitability

Perceptions of how suitable regulatory requirements are to business models and objectives played a significant role in shaping businesses views on the influence regulatory environments have on their ability to innovate. This was the case across different sectors, but was particularly keenly felt among businesses innovating in more novel ways that were disrupting markets and pushing the boundaries of existing regulatory frameworks.

Most businesses interviewed considered their regulatory environment to be appropriate for their business models and objectives, and so felt able to freely innovate. These businesses were typically innovating within the parameters of existing regulations and so were not pushing the envelope by bringing disruptive products to market.

For example, a business that manufactures medical devices said that they are continually working on developing and improving products. However, they were generally not producing anything significantly different from what was already available on the market and so could innovate without much concern for issues with regulatory compliance.

Similarly, a business that provides investment management services explained that their recent innovations - the introduction of a new service and the improvement of existing services - were undertaken with relative ease in terms of regulatory requirements. The business did not have to seek permissions or authorisation from their regulator because the innovations fit their regulatory framework.

The good thing for us is because it's not a completely new, different medical device, we can just keep it under the same [process] and have all the existing trials and data we have the first one, so we don't need to go through all that. (Manufacturing, 1-20 employees)

The firm is innovative internally regarding systems, but it wouldn't develop a product unless that product was already accepted by the regulator. (Financial Services, 100+ employees)

A few businesses said that their regulators had helped them with innovation projects by creating flexibility in existing regulations, allowing them to experiment with new products and processes in a safe environment. For example, a FinTech business that develops technology platforms and algorithms to facilitate open banking was involved in the FCA's Regulatory

Sandbox.³ It was explained that this program was of crucial importance to the business' innovation as it allowed them and the FCA to work out which regulations were suited to the business. The same sentiment was echoed by another FinTech business that had been involved in the FCA's Regulatory Sandbox in the past.

From our perspective, we wouldn't have existed as a business without the FCA Sandbox. That initiative is amazing... that's where we came to the viewpoint that actually we needed to be regulated under [a type of regulation]. (Financial Services, 50-99 employees)

Businesses that did not think that their regulatory environment was suited to their business models and objectives often highlighted this as the fundamental challenge when trying to innovate. These businesses were generally seeking to innovate in more novel ways, creating products or improving them to such an extent that they would push the boundaries of existing markets or create new markets unto themselves. Consequently, such innovations also pushed the boundaries of regulatory environments. With products that do not seamlessly fit with existing regulations, these businesses found the innovation process to be challenging; creating additional work, causing delays and, in some cases, stopping innovations altogether.

For example, a business that provides a service that helps consumers find the best energy deal wanted to improve the service by introducing automatic switching when a better deal is introduced. However, they have been unable to do this because their regulator has prohibited it. The business commented that they think regulators need to be more open to change and not focus on current ways of working.

I think regulation inhibits innovation if anything because the rules seem to be around how suppliers are working now or in the past rather than how a business like mine might see work in the future. I could introduce more innovation and services for clients if the regulatory environment was making it easier for me to do this but it doesn't and it feels like a struggle and I have to start from scratch with everything. (Energy, 1-20 employees)

Another example where issues with suitability have hindered a business's efforts to innovate is presented in Figure 5.4:

³ The FCA's Regulatory Sandbox allows firms to test innovative products, services and business models in a live market environment, while ensuring that appropriate safeguards are in place. It seeks to provide firms with: the ability to test products and services in a controlled environment; reduced time-to-market at potentially lower cost; support in identifying appropriate consumer protection safeguards to build into new products and services; and better access to finance.

Figure 5.4: Business D

An online mortgage brokers.

The business wants to be able to conduct eligibility checks in-house to improve the efficiency of their service and move closer to their objective of becoming a one-stop-shop for mortgages. However, the business is unable to do this under their current regulatory framework. To conduct eligibility checks in-house, their regulator requires the business to hold a lending license.

The business takes issue with this because they do not think a lending license is appropriate for their business. Furthermore, the business has found the process of acquiring a lending license to be very difficult.

"We have to go through the onerous process to get a lending license, despite the fact that we're not actually going to end up lending ... it influences our ability to take our greatest jump in terms of innovation, it does hamper that"

Administrative burden

Some businesses said that their efforts to innovate are affected by the administrative requirements set by regulators, such as regular reporting, the submission of applications and the need to obtain licences and insurance. These businesses said that such requirements posed a challenge when trying to innovate because the time and financial costs involved caused the innovation process to become protracted and, in a couple of cases, meant that innovations could not be pursued. This was equally the case across the piece, regardless of sector, the type of business, and the type of innovation undertaken.

For example, a business in the insurance sector explained how they are required to allocate significant resource to submit monthly reports to their regulator. It was felt that this requirement limited the amount of resource that could be allocated to innovations. Meanwhile, a business that manufactures medical devises explained how, if they want to make a change to a product, they have to submit several forms to their regulator to obtain permission. Although the business appreciated that this process was important to ensure safe products are entering the market, they felt that It did cause significant delays to the innovation process.

[Regular reporting] is a significant and costly burden. Not having to do it would free up resource to do other things. We have to employ people to carry out administrative tasks which we don't necessarily see any value from. (Insurance, 100+ employees)

If I do make a change, it's not as though I can just go in and make a change, I have to then fill out about five different forms saying why I've made that change and how that's going to affect everything... It slows everything down to a certain extent. (Manufacturing, 1-20 employees)

Another example of a business that has faced difficulties innovating because of the administrative requirements set by their regulators is presented in Figure 5.5:

Figure 5.5: Business E

A high street solicitors' practice.

The business felt that regulation has a negative effect on their ability to innovate. This is primarily because of the administrative burden of complying with regulatory requirement. The work and financial costs involved in conducting checks on clients as part of the regulations, obtaining professional indemnity insurance and obtaining a practicing certificate from their regulator has meant that the business does not have enough resource to invest in innovation.

The business owner commented that they have recently had to abandon plans to invest in Al software because they do not have enough money available to do so.

"The primary factor preventing me from innovating within the services we provide is cost ... it's because of the money I have to pay to the [regulator] and the indemnity people, and that sort of thing, I don't have the money to pay for the innovation and the tech that we would need to innovate."

Views on how regulatory environments could facilitate innovation

Some businesses did not think any changes needed to be made to their regulatory environment to facilitate innovation. These businesses had been able to successfully innovate without significant challenges being posed by their regulatory environment and, in some cases, felt as though regulators had helped with innovation through the provision of information and support and by accommodating their business model and products.

Although some businesses did not think changes needed to be made to their regulatory environment to facilitate innovation, most did identify areas for improvement. Considering the issues with regulatory environments that businesses identified as making innovation more challenging, it is unsurprising that these changes typically related to accessibility, suitability and administrative burden.

Accessibility

Linked to the finding that some businesses have faced challenges when trying to innovate due to difficulties accessing information about regulatory requirements, guidance and support, some felt that improvements in this area would be key to the facilitation of more innovation. This is because it would provide businesses with a better understanding of how to innovate in a compliant manner. This was equally the case across the piece, regardless of sector, the type of business, and the type of innovation undertaken.

Many of the businesses that thought improvements should be made in terms of accessibility expressed a desire to have more information and clearer information about regulatory requirements from regulators at an early stage. For example, a manufacturer of medical devices said that it would be helpful if their regulator provided information at the early stages of an innovation about the evidence the business needs to collect and share with them. Meanwhile, another manufacturing business said that information about if and how regulations differ for different product types would be beneficial.

A lot of the guidance does seem pretty vague; there's no set amount of clinical trials you need to have ran for a medical device to be approved, so potentially more clarity on that... It would give you something certain to work towards, rather than not knowing exactly where your finish line is, you know clearly, 'they want this, and they want that'. It would just help you plan everything a little bit better. (Manufacturing, 1-20 employees)

There needs to be a party line... being clearer about the messaging. At the end of the day people just want to know where they stand. If you don't know then you can only really do what you think is right. (Manufacturing, 21-49 employees)

Another example of a business that felt that clearer information from their regulator would help facilitate innovation is presented in Figure 5.6:

Figure 5.6: Business F

A pharmaceutical business.

This business was generally happy with their ability to innovate within their regulatory environment.

However, the business felt that it would be easier for them to innovate if their regulator provided them with information about possible changes to regulations at the outset of an innovation. This is because the innovations undertaken by the business are long term and so would benefit from knowledge of possible future changes to regulation.

"You might be looking at in excess of ten years to develop a drug, so the regulatory position can be very different from when we start out to when we finish so if we understood more about the agency's thinking in advance, that would be useful... The gain for us would be to understand the direction of travel a little bit more"

Some businesses felt that more active support from their regulator regarding innovation would help them to innovate. These businesses were often unclear about what this would look like in practice but expressed that being able to access advice and guidance from a regulator would help. One business surmised this as having more of a "relationship" with their regulator during the innovation process.

They could come in and discuss what you're planning to do and give you some feedback on when they'd want to see certain parts potentially...more of a relationship. (Manufacturing, 100+ employees)

It would be lovely to have a department that someone like me could speak to, who is designing an innovative product for a specific marketplace where it doesn't fit into a square box. When you need to ask for advice or regulations it would be really nice to speak to a team who can figure it out for you. (Manufacturing, 1-20 employees)

Suitability

Some businesses felt that regulations needed to change in order for them to innovate in the ways they want. This was not dependent on sector, but was particularly keenly felt among businesses innovating in more novel ways that were disrupting markets and pushing the boundaries of existing regulatory frameworks. With business models and products that do not

seamlessly fit with existing regulations, these businesses have experienced challenges when innovating and, in some cases, have to mothball plans.

Owing to the fact they operate in different regulatory environments and are seeking to innovate in a wide variety of ways, views on how regulations should change differed between from business to business. However, the overarching message was that regulatory frameworks should be more flexible; shaping to suit the needs of businesses rather than requiring businesses to shape themselves to suit regulatory environments.

Figure 5.7 presents an example of a FinTech business that thinks their regulator should introduce regulations that better suit their business model:

Figure 5.7: Business G

An online mortgage broker.

The business wants to be able to conduct eligibility checks in-house to improve the efficiency of their service and move closer to their objective of becoming a one-stop-shop for mortgages. However, the business is unable to do this under their current regulatory framework. To conduct eligibility checks in-house their regulator requires the business to hold a lending license.

The business takes issue with this because they think the regulator is trying to shoehorn them into a regulatory framework that is not appropriate for them. It was suggested that the regulator should create regulations to suit their needs, specifically regulations that allow businesses that do not lend to carry out eligibility checks.

"There is an issue there that the [regulator] is not reacting to innovation in the mortgage market...There is nothing in the middle between being allowed to advise and being allowed to lend. There is nothing in the middle to match our needs"

In the energy sector, a business explained how they had been unable to realise the ambition of building a windfarm off the UK mainland because under current regulations the cost of transmitting electricity back to the mainland would be too high. The business thinks that their regulator should change regulations, so they better accommodate the generation of electricity in more remote locations away from areas of high demand.

Overall the one silver bullet would be them accepting that there are parts of the country that don't or are not suited to a one size fits all approach and recognise that different parts of the country have different requirements and they need to be innovative around that central principle. (Energy, 1-20 employees)

In the legal services sector, a business explained how they had faced significant challenges when trying to introduce bespoke software intended to improve efficiency by automating processes. The business was eventually able to introduce the software, but only after three instances of their regulator blocking it. The business thinks that their regulator should make regulations more appropriate for the present day by relaxing rules around the use of software and IT systems. It was emphasised that such tools are valuable in helping businesses grow.

They're just not very keen on change. They always seem suspicious of change; it's an old fuddy-duddy society. They should revisit some of their rules and

regulations and bring them up to date with 2019. It would help people grow faster; we can do different things with technology. (Legal services, 21-49 employees)

Administrative burden

A few businesses felt that their ability to innovate would be enhanced if there was less of an administrative burden in their regulatory environment. These businesses said that the administrative requirements set by their regulators made innovation challenging because the time and financial costs of meeting such requirements meant that there were fewer resources to spend on innovation. This was equally the case across the piece, regardless of sector, the type of business, and the type of innovation undertaken.

A couple of businesses suggested that reporting requirements should be made less frequent, while others said that the administrative burden on them could be lessened by streamlining processes.

For example, a manufacturing business explained how they are required to submit multiple documents to their regulator each time a new product is developed, or an existing product is improved. This was said to add considerable time to the task of getting a product to market. The business suggested that cutting back the number of documents that need to be submitted and providing templates to businesses would help.

If they could have different templates for different products, or different markets, that might speed up processes, so rather than having to go through pages and pages of documents, if they actually had a streamlined process that you'd follow then that would save time... it would speed up the whole design process in getting that product to the market, instead of taking say 2 years, it was 1 year from start to finish. (Manufacturing, 1-20 employees)

Another manufacturing business felt that the simplification of reporting to their regulator would help facilitate innovate as it would free up resource. The business explained that the administrative requirements of reporting to their regulator did not present a significant burden, but enough that they felt it had an impact on their ability to innovate.

What I'm trying to do is make everything I have to do much simpler and easier, so I can spend more time in more important areas. Whilst the Gabriel report that I have to do is very minimal amount of work, I would like to be able to do that in ten minutes and not spend 2 or 3 days a year. (Manufacturing, 1-20 employees)

Appendices

Appendix A: Recruitment screener

Screener

ASK ALL

S1. Good morning / afternoon. My name is <NAME> and I'm calling from IFF Research on behalf of The Government Department for Business, Energy and Industrial Strategy (BEIS).

Please can I speak to the person responsible for business strategy? For example, the person in charge of developing new products, services and processes.

[IF HASCON=1: IF NEEDED, NAME ON SAMPLE: <NAMED RESPONDENT>?]

| Respondent answers phone | 1 | CONTINUE | | |
|---|----|--|--|--|
| Transferred to respondent | 2 | | | |
| Hard appointment | 3 | MAKE APPOINTMENT | | |
| Soft Appointment | 4 | | | |
| Engaged | 5 | CALL BACK | | |
| No reply / Answer phone | 6 | | | |
| Refusal | 7 | THANK & CLOSE | | |
| Nobody at site able to answer questions | 8 | | | |
| Not available in deadline | 9 | | | |
| Residential Number | 10 | | | |
| Dead line | 11 | | | |
| Company Closed | 12 | | | |
| Request reassurance email | 13 | COLLECT EMAIL/ SEND TEXT IN APPENDIX A. | | |
| Request reassurances | 14 | SHOW REASSURANCES | | |

ASK IF transferred/on phone (S1=1 or 2)

S2. Good morning / afternoon, my name is <NAME>, calling from IFF Research, an independent market research company.

The Government Department for Business, Energy and Industrial Strategy (BEIS) has commissioned us to conduct important research with businesses about how regulators, and regulation in general, impacts on growth.

The research will provide BEIS with a better understanding of how regulation effects business growth, what regulators are doing to help facilitate growth and identify what more they could do.

As part of this research we are interviewing senior stakeholders from businesses across a variety of different sectors.

Would you be the best person in your organisation to discuss this topic?

IF NECESSARY: BEIS is a government body that aims to improve economic growth and productivity within businesses. The research will give BEIS a clearer understanding of innovative activities and enable policy to be developed & designed according to the needs of organisations within the UK.

| Yes | 1 | GO TO S4 |
|--|---|---|
| No | 2 | GO TO S3 |
| do not read out: Don't know | 3 | |
| do not read out: Request reassurance email | 4 | COLLECT EMAIL. SEND TEXT IN APPENDIX A. |
| do not read out: Request reassurances | 5 | SHOW REASSURANCES |

REASSURANCES TO USE IF NECESSARY

The Department for Business, Energy and Industrial Strategy (BEIS) has commissioned IFF Research, an independent market research company, to conduct important research with businesses like yours about the experience of engaging with regulators.

The research is specifically focused on experiences engagements with regulators related to innovation (e.g. the development of new products, services or business models).

The research will provide BEIS with a better understanding of what regulators are doing to help facilitate innovation and identify what more they could do.

This conversation will only take around 5 minutes. It's just to arrange the interview and to get some background information.

IFF Research are legally bound by the Market Research Society's Code of Conduct to use this data only for the purposes of this research and cannot pass it to anyone else.

If you wish to confirm the validity of the survey or get more information about aims and objectives, you can call:

Contact details removed

ASK IF NOT BEST CONTACT (S2=2 OR 3)

S3. In that case, could you please provide me with the contact details of the person who would be best placed to discuss this topic?

IF NECESSARY: Alternatively, you can take the email address for a member of the research team and get back to us at a later date

| Name | WRITE IN |
|-----------------|----------|
| Role/department | WRITE IN |
| Email | WRITE IN |
| Phone | WRITE IN |
| Refused | 1 |

ASK CORRECT CONTACTS (S2=1)

S4. Before we begin, I have a few questions to see if this research is relevant to your business.

Firstly, has your business had any direct contact with regulators in the past 12 months? Specifically, regulators relevant to the goods or services your business produces. Please exclude tax regulators.

IF NECESSARY: This could include speaking with a regulator over the phone, attending an event or submitting forms etc.

| Yes | 1 | |
|------------|---|-----------------|
| No | 2 | THANK AND CLOSE |
| Don't know | 3 | THANK AND CLOSE |

ASK IF ENGAGED WITH REGULATORS (S4=1)

S4a. Can you name the regulators that you have engaged with in the past 12 months?

| WRITE IN | | |
|------------|---|--|
| Don't know | 1 | |
| Refused | 2 | |

ASK IF ML SAMPLE (SAMTYPE=1)

S5. Within the last 3 years, has your business made any major changes in the following areas? Have you...

READ OUT. MULTICODE.

| Introduced new business practices for organising procedures PROMPT WITH: (e.g. Supply chain management, business re-engineering, knowledge management, lean production, quality management) | 1 | |
|--|---|--|
| Introduced new methods of organising work responsibilities and decision making PROMPT WITH: (e.g. First use of a new system of employee responsibilities, team work, integration or de-integration of departments, education/ training systems etc) | 2 | |
| Introduced new methods of organising external relationships with other firms or public institutions PROMPT WITH: (e.g. First use of alliances, partnerships, outsourcing or sub-contracting etc) | 3 | |
| DO NOT READ OUT: None of these | 4 | |
| do not read out: Don't know | 5 | |
| do not read out: Refused | 6 | |

ASK IF ML SAMPLE (SAMTYPE=1)

S6. Within the last 3 years, has your business introduced...

READ OUT. MULTICODE.

| New or significantly improved goods (Exclude the simple resale of goods purchased from other businesses and changes of a solely aesthetic nature) | 1 | |
|--|---|--|
| New or significantly improved services | 2 | |
| DO NOT READ OUT: None of these | 3 | |
| do not read out: Don't know | 4 | |
| do not read out: Refused | 5 | |

ASK IF ML SAMPLE (SAMTYPE=1)

S7. Within the last 3 years, has your business introduced any new or significantly improved processes for producing or supplying goods or services?

DO NOT READ OUT. SINGLE CODE.

| Yes | 1 | |
|------------|---|--|
| No | 2 | |
| Don't know | 3 | |
| Refused | 4 | |

ASK IF ML SAMPLE (SAMTYPE=1)

S8. Within the last 3 years, has your business had any innovation activities that were...

READ OUT. MULTICODE;

| Abandoned? | 1 | |
|-----------------------------------|---|--|
| Still ongoing at the end of 2018? | 2 | |
| DO NOT READ OUT: None of these | 3 | |
| do not read out: Don't know | 4 | |
| do not read out: Refused | 5 | |

| INNOVATOR DUMMY: DO NOT ASK | | | | | |
|-----------------------------|---|---|---|--|--|
| Innovator | 1 | (SAMTYPE=2) OR (S5 = 1-4 OR S6 = 1-2 OR S7=1 OR S8 = 1-2) | CONTINUE | | |
| Not an innovator | 2 | S5=5-7 AND S6=3-5 AND S7=2-4 AND S8=3-5 | "Unfortunately, you do not meet the criteria of the type of business we are looking to conduct interviews with. Thank you very much for your time." | | |

ASK ALL

S9. Thank you very much. You definitely qualify for the research. I just need to check two more things. Firstly, what does your business mainly do?

Prompt if necessary: What is the main product or service you produce?

| WRITE IN | | |
|--------------------------|---|--|
| | | |
| DO NOT READ OUT: Refused | 1 | |

ASK ALL

S10. And finally, how many employees does your business have?

DO NOT READ OUT. SINGLE CODE.

| 1-20 | 1 | |
|-----------------------------|----|--|
| 21-49 | 2 | |
| 50-99 | 3 | |
| 100-199 | 4 | |
| 200-499 | 5 | |
| 500-999 | 6 | |
| 1000-1999 | 7 | |
| More than 2000 | 8 | |
| do not read out: Don't know | 9 | |
| do not read out: Refused | 10 | |

Appendix B: Interview topic guide

Background (5 minutes)

I'd like to start by getting a bit of background about you and your business.

- Can you give me a brief overview of your business?
 - o What is your business' main activity?
 - o How many employees does the business have?
 - o How long has the business has been operating for?
 - O What was the business' turnover last year?
- What is your role in the business?
 - O What are your main responsibilities day to day?
 - o What is your role in relation to dealing with regulators?
 - o How long have you been in this role?
 - o How long have you worked for the organisation?

Regulation (10 minutes)

I'd now like to talk about regulation. I'd specifically like to talk about regulations relevant to the goods and services your business produces, not tax regulations.

- So, can you tell me a bit about the regulatory environment the business operates in?
 - o Who are you regulated by? Who else?
 - IF MULTIPLE REGULATORS: Who would you consider to be your primary regulator?
 - What are the main regulations are you required to comply with? Which require the most resource to comply with?
- How do you feel about this regulatory environment?
 - How appropriate do you think the regulations you need to comply with are? Why?
 - In your view, could they be made more appropriate? What difference would this make?
- How do you engage with regulatory information?
 - o Do you go engage with regulators directly?
 - How do you go about directly engaging with regulators? (e.g. phone, email or events)
 - O Why do you engage with regulators this way?

- o In what circumstances would you do this? What kind of information/support are you seeking? Can you provide a specific example?
- o How often do you do this? When did you last do it?
- o IF MULTIPLE REGULATORS: Does this vary by regulator?
- Do you engage with regulators indirectly?
 - How? (e.g. visiting their website or by using a third party)
 - o Why do you engage with regulators this way?
 - o In what circumstances would you do this? What kind of information/support are you seeking? Can you provide a specific example?
 - o How often do you do this? When did you last do it?
 - o IF MULTIPLE REGULATORS: Does this vary by regulator?

IF ENGAGED DIRECTLY

- How would you describe your recent experiences of directly engaging with regulators?
 - o Which regulators have you recently had direct engagement with?
 - o When did this engagement occur? How frequently do you engage with them?
 - How easy or difficult are they to get in contact with?
 - o How satisfied are you with the guidance or support they provide?
 - Is there any way in which your experience of engaging with regulators could be improved/made easier?
 - o IF CONTACTED MULTIPLE REGULATORS: Do the regulators you contact provide consistent advice?

IF ENGAGED INDIRECTLY

- How would you describe your experience of engaging with regulatory information?
 - o How easy or difficult is it access?
 - o How satisfied are you with the information or guidance available?
 - Is there any way in which your experience of engaging with regulatory information could be improved/made easier?

Innovation (15 minutes)

Next, I would like to discuss innovation within the business, by which I mean the introduction of new procedures or processes and the development of new products or services.

INTERVIEWER: CHECK BOOKING SHEET IF NEED ASK QUESTION (DON'T IF 'NO')

• Within the last 3 years has your organisation made any changes to any of its procedures or processes?

- For example: new business practices for organising procedures; new methods of organising work responsibilities and decision making; new methods of organising external relationships with other firms or public institutions; and changes to marketing concepts or strategies.
- o Can you give me an example of a procedure or process that was changed?
- o What motivated this change? What were you trying to achieve? Why?
- How did you go about implementing it? Can you talk me through the process?
 Who was involved? What investment was required (e.g. acquisition of R&D, machinery/equipment or marketing)?
- o What challenges did you encounter? How did you overcome them?
- IF NO: Did you consider doing this in the last 3 years? If so, what stopped you from going ahead with it?
- Within the last 3 years has your business introduced any new goods or services, or significantly improved existing goods or services?
 - Can you give me an example of a new/improved good or service the business has introduced?
 - o What motivated this innovation? What were you trying to achieve? Why?
 - What was the process behind this innovation? Can you talk me through the process? Who was involved? What investment was required (e.g. acquisition of R&D, machinery/equipment or marketing)?
 - o What challenges did you encounter? How did you overcome them?
 - IF NO: Did you consider doing this in the last 3 years? If so, what stopped you from going ahead with it?
- Within the last 3 years has your business introduced new processes for producing or supplying goods or services, or significantly improved processes?
 - Can you give me an example of a new/improved process for production or supply?
 - o What motivated this innovation? What were you trying to achieve? Why?
 - What was the process behind this innovation? Can you talk me through the process? Who was involved? What investment was required (e.g. acquisition of R&D, machinery/equipment or marketing)?
 - o What challenges did you encounter? How did you overcome them?
 - IF NO: Did you consider doing this in the last 3 years? If so, what stopped you from going ahead with it?
- Within the last 3 years has your business abandoned any innovation activities? For example, the introduction of new goods or services or processes for production and supply.
 - o Can you give me an example of an innovation that was abandoned?

- O Why was this innovation abandoned?
- o At what point was this innovation abandoned?
- o What, if anything, would have helped facilitate this innovation?

The relationship between regulation and innovation (15 minutes)

Now I'd like to discuss the relationship between regulation and innovation. In other words, how the regulatory environment you operate in effects efforts to introduce new goods or services or processes for production and supply.

- Overall, to what extent do you think the regulatory environment your business operates in influences innovation?
- Why do you say that?
 - Are there specific aspects that are beneficial? Why? Can you give me an example?
 - Are there specific aspects that hinder innovation? Which? Why? Can you give me an example?
 - o How does this compare to regulatory environments in other sectors in the UK?
- Thinking about your business' recent innovation(s), did you directly engage with regulators during this process? For example, discussions in person or via email.

IF YES

- Why did you engage with them? What were you after?
- o At what points/in what circumstances during the process? How frequently?
- What information/support/programmes did they offer? Did this align with your needs?

IF NO

- o Why not?
- Do you think this had any implications for your innovation(s)? Why?

IF DIRECTLY ENGAGED WITH REGULATORS

- What effect, if any, did the interaction with regulators have on your recent innovation(s)?
 - What information/support/programmes were particularly useful? Why?
 - What difference do you think this made to the innovation(s)? Why?
 - o Were there any aspects that were a hinderance? What? Why?
- And still thinking about your business' recent innovation(s), did you engage with regulatory information during this process? For example, not directly engaging with the regulator but seeking information on their website.

IF YES

- Why did you engage with regulatory information? What were you after?
- At what points/in what circumstances during the process? How frequently?
- What information did you find? Did this align with your needs?

IF NO

- o Why not?
- o Do you think this had any implications for the innovation(s)? Why?

IF ENGAGED WITH REGULATORY INFORMATION

- To what extent do you think your engagement with regulatory information facilitated your recent innovation(s)?
 - o What was particularly useful? Why?
 - o What difference do you think this made to the innovation(s)? Why?
 - o Were there any aspects that were a hinderance? What? Why?
- What do you think regulators could do to facilitate more innovation in your sector?
 - Any changes to specific regulations? Which? Why?
 - Any new or improved information/support/programmes? Why?
 - o What difference do you think this would make to businesses like yours?
 - How would this overcome aspects of the regulatory environment that you think hinder innovation?
- If your business was to innovate in the future, perhaps develop a new product or service, what one thing could your regulator(s) do to help?
 - O What difference would this make?
 - o At what points during the innovation process would this be most valuable?

