Best execution in electronic banking and brokerage: an analysis of business and technical requirements

Peter Gomber and Gregor Pujol*

E-Finance Lab,
Campus Bockenheim, Postfach 11 19 32,
D-60054 Frankfurt am Main, Germany
E-mail: gomber@wiwi.uni-frankfurt.de
E-mail: pujol@wiwi.uni-frankfurt.de
*Corresponding author

Abstract: The Markets in Financial Instruments Directive (MiFID) has to be applied by investment firms and regulated markets in Europe from 1 November 2007. The goal of this paper is to discuss and evaluate its key regulatory requirements, associated business and IT implications with an emphasis on the best execution obligation. Based on that, different alternatives for the practical realisation in organisational processes and IT systems will be presented. Empirical evidence is provided based on the results of two studies on the preparatory status for MiFID of the German financial industry conducted in 2006 and 2007.

Keywords: brokerage; trading; MiFID; Markets in Financial Instruments Directive; best execution; best execution policy.


Biographical notes: Peter Gomber holds the Chair of Business Administration, especially e-Finance at the Faculty of Economics and Business Administration, University of Frankfurt/M. He is also a Member of the Board of the E-Finance Lab.

Gregor Pujol is research assistant of the E-Finance Lab at the University of Frankfurt, Germany.

1 Introduction

An increasing number of projects in Electronic Banking is driven by regulatory requirements keeping compliance officers and numerous business and IT employees busy. One current prominent example in banking and brokerage is the Markets in Financial Instruments Directive (MiFID). MiFID (European Commission, 2004) represents the centrepiece of the Financial Service Action Plan (European Commission, 1999) aiming at an integrated and harmonised European market for financial services and products. Further objectives are to simplify the cross-border distribution of products and
services, to improve investor protection as well as market efficiency and to increase competition between intermediaries on a level playing field. MiFID covers a very broad range of security services and instruments and introduces a number of significant changes that affect both investment firms and regulated markets in the EEA countries, i.e., all EU and EFTA countries without Switzerland. Key MiFID requirements include, for example extensive pre- and post-trade transparency regulations, a new classification of trading venues, new conduct of business rules and new obligations on how client orders have to be executed (best execution obligations).

In response to these major regulatory changes, many financial institutions need to assess their existing business routines, organisational processes and IT systems. There is a common understanding within the industry that the new best execution obligation imposed by MiFID is one of the most far-reaching or even the most far-reaching changes for the industry. It covers all financial instruments included in the MiFID regulation and it not only addresses the interaction between investment firms and their customers in order execution but also has important competitive implications for marketplaces all over Europe. Therefore, in this paper we will highlight the regulatory, business and technical implications imposed by the best execution obligation and include the results of two empirical studies on the preparatory status of the German financial industry for MiFID that we conducted in early 2006 and early 2007, respectively.

The paper starts with a general overview of the key aspects introduced by MiFID in Section 2 and will highlight the importance of best execution that represents the centre-piece for further discussion. Section 3 describes the regulatory requirements of best execution and the associated business requirements in detail (Subsection 3.1). Based on this illustration, Subsection 3.2 will discuss alternatives for the actual realisation of those requirements in organisational processes and the IT environment, i.e., how to allocate a customer order to an execution venue delivering the best possible result for the client. Section 4 provides the conclusion and an outlook for future research.

2 MiFID: key requirements

The 73 articles of the MiFID – which is often referred to as the new basic law in securities trading – imply a number of challenges that affect not only client relationships of financial institutions but also a number of key elements of the securities trading value chain. MiFID, which is the follower directive of the ISD of 1993, has to be applied by investment firms and regulated markets in the EEA (EU and EFTA countries without Switzerland) by 1 November 2007. MiFID comprises two levels of European legislation. ‘Level 1’, the Directive itself, came into effect in April 2004 (European Commission, 2004) and ‘Level 2’ covering the ‘technical implementation measures’ was finally adopted in September 2006 (European Commission, 2006a, 2006b).

The impact on operational processes and systems in many financial institutions is significant, though obviously depending on the business models and services provided by the individual investment firm.
Thus, there is the need to undertake efforts to identify affected areas, necessary business and technical amendments and new processes that need to be put in place. Furthermore, investment firms have to (re-)consider their strategic goals and the markets they wish to participate in. For this purpose, a gap analysis of the current business processes and the existing IT environment supports investment firms to reveal not only the major challenges, but also the opportunities and threats. Gomber and Seitz (2005) identified the following key areas:

2.1 **New classification of order execution venues**

MiFID explicitly targets at setting up increased competition between order execution venues independent of their institutional set-up (exchange-based or intermediary-based) by abolishing concentration rules (i.e., the requirement to execute orders on the national stock exchange) and therefore defines three new categories of order execution venues: Regulated Markets (RM), Multilateral Trading Facilities (MTF) and Systematic Internalisers (SI). A Regulated Market is a multilateral system operated by a market operator where the instruments traded are admitted according to a defined procedure, and the market is authorised and functions according to Title III of the Directive. Multilateral Trading Facilities are also multilateral systems – they can be operated both by the operator of a Regulated Market or an investment firm. MTFs do not have the same obligations concerning financial instruments included into their quotation, and there are no specific requirements regarding the authorisation for the operation of an MTF. A Systematic Internaliser is an investment firm that on an organised, frequent and systematic basis deals on own account by executing client orders outside a regulated market or an MTF. Note a fourth implicitly defined category (according to recital 53 MiFID) that relates to OTC trading, which are transactions that are ad hoc and irregular and are carried out with wholesale counterparties.

2.2 **Pre-trade transparency**

Pre-trade transparency requirements vary depending on the nature of the addressee. Regulated markets and MTFs are subject to wide-ranging pre-trade transparency requirements. But, transparency requirements are applicable not only to the markets but also to the investment firms. All investment firms have to fulfil Article 22 (2) MiFID, pursuant to which client limit orders that are not immediately executable are to be displayed to the wider market to enable the earliest possible execution (‘limit order display rule’). Investment firms that execute client orders against their own trading books and qualify as Systematic Internalisers according to Article 4 (7) MiFID are required to show accessible and executable quotes to the wider market in liquid shares in which they want to internalise (‘quote disclosure rule’).

2.3 **Post-trade transparency**

In contrast to the completely new pre-trade transparency requirements for investment firms, the European Commission was able to build on existing examples in many Member States with regard to the implementing measures for post-trade transparency (Articles 28 and 45 MiFID). Among the many issues involved, there are two that particularly affect the existing market practice: First, the trade needs to be published as
close to real time as possible, i.e., in 3 minutes after execution of the transaction at the latest. Whereas, this is no change of the status quo in the UK, other markets, for example Germany, that do not apply post-trade transparency requirements in OTC trading yet need to adapt processes to be able to meet those time limits. This has an impact not only on trading processes but also on the interaction between front and back offices regarding trade-data collection and the overall system landscape in trading rooms. Second, concerning publication channels the MiFID does not privilege any institution, but demands that the information is published in a reasonable and timely manner, thus, enabling for the consolidation of information. Therefore, markets and intermediaries have to introduce either new reporting channels/infrastructures or link to existing channels that are provided by other market infrastructure providers (exchanges or data vendors).

Both the pre-trade and the post-trade transparency provisions exclusively apply to shares. According to Article 65 MiFID, the Commission has to report to the European Parliament and the Council on a potential amendment of the Directive also to provide for pre-trade transparency regulations for other financial instruments.

2.4 Conduct of business

The client classification regime is the starting point for many of the conduct of business rules that will affect the existing business practices of investment firms. MiFID envisages a three-tier client classification system: retail clients, professional clients and eligible counterparties. There will be some flexibility for clients to move between categories to obtain more, or less, regulatory protection. The regulatory protection afforded to each category of clients will be different according to the nature of the clients. The full conduct of business rules will apply to retail clients, a lighter regime to professionals and eligible counterparties.

The list of other areas covered by the conduct of business rules is fairly wide and stretches from the provision of advice, tests of suitability and appropriateness for investment advices to record keeping and transaction reporting. The requirements will lead to amendments in not only the flow of information within businesses but also to the set-up of information technology systems to be able to maintain data and prove compliance over time or upon client request.

2.5 Best execution

Best execution is considered as a key requirement of the conduct of business rules. It is more than the accomplishment of the best price: Investment firms are required to establish effective measures to achieve the overall best result for their clients. The decision on when, where and how to execute a client’s order will – beyond price – also need to take into account other factors, such as order type, size, settlement arrangements and timing, together with any other special instruction set by the client.

Figure 1 provides an overview regarding the influence of MiFID on different areas of the securities business value chain. Besides pre-trade and post-trade transparency requirements, order routing and best execution represent key aspects with a high level of impact.
We conducted two surveys among German investment firms to identify the preparatory status of the German financial industry for MiFID in spring 2006 and spring 2007, respectively (193 investment firms in the sample of 2006, rate of return 28.5%; 178 investment firms in the sample of 2007, rate of return 33.7%). In both studies, we investigated project set-up, estimated implementation costs and the competitive potential arising from MiFID from the perspective of the firms. In both surveys, best execution was ranked the highest concerning the possibility to generate new competitive potential out of MiFID. In the 2007 survey, 32.0% stated that the competitive potential out of best execution is very high or rather high (30.0% in 2006) – see Figure 2.

Figure 2  Competitive potentials for security services with the implementation of MiFID
Due to the high relevance for the electronic banking and brokerage industry, the best execution requirement is examined in more detail in the following section. After a brief literature overview, we will assess best execution from a regulatory perspective and identify the key business challenges. Based on these requirements, we will analyse process and IT implications and discuss three concepts for the practical implementation of the best execution obligation.

3 Best execution: challenges for business and IT

Best execution is discussed from different perspectives in academic literature, especially for US markets from a viewpoint of how best execution can be realised and measured. Macey and O’Hara (1996) analysed legal and economic aspects of the duty of best execution and recommended that best execution for a particular trade is best achieved through competition between trading venues. However, McCleskey (2004) suggested that best execution should be subject to regulation, as investors are not capable to evaluate execution quality owing to limited access to appropriate information. Furthermore, a number of papers examined cost as a key aspect involved with best execution for a single trading venue (Roll, 1984; Stoll, 1989) as well as between different markets (Huang and Stoll, 1996; De Jong et al., 1993). These studies basically concluded that execution costs could be measured. Further research by Bacidore et al. (1999) proposed six measures to quantify best execution.

The European Regulator addresses many of these viewpoints and particularly intends to harmonise the best execution requirements on a pan-European level. The new regime is characterised by a large diversity of influencing factors that investment firms have to consider in their order execution processes and includes all financial instruments and all types of execution venues. The following section deals with the key requirements and business implications surrounding best execution.

3.1 Regulatory and business requirements

MiFID requires investment firms to execute customer orders on terms most favourable to the client. The best execution obligation is detailed in Article 21(1) MiFID that requires investment firms to

“take all reasonable steps to obtain … the best possible result … taking into account price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution of the order.”

For determining the relative importance of those factors, investment firms shall – according to Article 44 of the draft implementing directive (European Commission, 2006b) – take into account the status of the client (retail or professional), the nature of the order (size and type), characteristics of the financial instrument the order is subject to, and characteristics of the venue to which that order can be routed. Investment firms have to specify an order execution policy that
“shall include, in respect of each class of instruments, information on the different venues where the investment firm executes its client orders and the factors affecting the choice of execution venue. It shall at least include those venues that enable the investment firm to obtain on a consistent basis the best possible result for the execution of client orders.” (European Commission, 2006b)

However, the European legislation does not oblige investment firms to connect to every trading venue at any cost, if the “costs of connecting to certain venues would be disproportionate and lead to a heavy overall increase in fees”. Investment firms have to update their order execution policy ‘on a regular basis’ (European Commission, 2006b). Furthermore, according to Article 21(5) MiFID, they are required to prove on request that they executed a client order in accordance with their order execution policy.

The best execution obligations of MiFID require investment firms to consider four key aspects: the handling of client instructions, the interpretation of the factors determining the best execution, the criteria to define the relative importance of those factors and the process of venue selection. In the following, we detail these aspects and examine their interaction.

3.1.1 Client instructions

Article 21(1) MiFID stipulates that investment firms must follow ‘specific client instructions’. MiFID recognises that clients may have particular views about how their orders should be executed and explicitly entitles investment firms to respond to these requirements. However, that mandatory instruction should not be interpreted as a means to obtain instructions from clients to circumvent the best execution requirements. Since client instructions are likely to address only some aspects of the execution, for example regarding the selection of an execution venue, the remaining unspecified aspects would need to follow the rules of the applicable best execution policy (European Commission, 2006b).

3.1.2 Factors for achieving the best result in order execution

Article 21(1) of Level 1 specifies the relevant factors that investment firms have to consider within the process of selecting appropriate execution venues that provide the best possible result for clients.

Price. Price obviously is a dominant factor to consider in the order execution process, but the best price on its own does not always achieve the best possible result.

Costs. Costs represent another important factor, especially in combination with price. Clients will not realise the best possible result, if the ‘best price’ is associated with high costs. Costs can be subdivided into further components. Explicit costs are directly related to a transaction and include for example trading fees or settlement fees. Implicit costs, on the other hand, are often referred to as market impact, timing costs and opportunity costs that are difficult to quantify. They are inherent to the price and result from how a trade is executed, for example immediately, in a block, aggregated with other trades or at different execution venues.

Size. The best price in a market usually represents an opportunity to trade in a particular size, i.e., a number of relevant securities, contracts, etc. In some cases, the offered price,
applying to a restricted order size only, may not match the size of the client order. For example, orders exceeding the indicated size would only be partially executed at the offered (best) price. Depending on market movements, the subsequent executions for the remaining portions of the order could become less favourable.

**Speed.** Speed can refer to how quickly an execution venue tends to complete an order. One indicator represents the frequency of price changes that is subject to different instruments, market conditions and execution venues. In times of strong market movements, speed of execution is very important. Investment firms interested in speed to achieve the best possible result may consider whether a particular venue is capable of performing fast executions, if required.

**Likelihood of execution.** The best price may be unachievable if the execution venue is not capable to complete the order. The likelihood of execution can be influenced by the existence of liquidity that determines the range of trading opportunities. For example, venues with limited order flow may experience more difficulties to complete an order.

**Likelihood of settlement.** Restrictions may also apply for settlement conditions. Best price alone does not satisfy clients if the execution venue offering that price cannot settle according to the specific instructions.

**Nature of the order.** The nature of an order refers to its particular characteristics such as for example buy or sell, limit or market order that are especially relevant to how it is executed.

**Any other consideration relevant to execution of the order.** This summarising category clarifies that investment firms may consider additional aspects related to the order execution, for example trading hours or partial executions.

The challenge investment firms will have to face originates from the assessment of the relative importance of these factors and differs between client categories. For the specific customer group of retail clients, the implementing directive of the European Commission (European Commission, 2006b) explicitly assigns a priority among the criteria for determining the best result: Recital 67 provides that for retail client orders the best possible result is reflected by the total consideration that consists of two factors, price of the instrument and costs related to the trade. The concept of total consideration also basically applies to professional clients. CESR argues that it would not appear reasonable if price and cost were given a relative low importance for orders executed on behalf of professional clients. However, MiFID explicitly leaves the decision to investment firms whether they consider additional factors (for example speed) that for professional clients could be of higher importance in some circumstances (CESR, 2007a).

In our studies, we also investigated how firms assess the relative importance of these factors – see Figure 3. In both the 2006 and the 2007 study, price represented the most important factor followed by cost. This empirical evidence corresponds with the intention and interpretation of MiFID (European Commission, 2006b; CESR, 2007b), especially with the prioritisation referring to the total consideration (price and cost) for retail clients. The remaining factors succeeded with decreasing importance starting with speed, followed by likelihood of execution, likelihood of settlement, size, nature of the order and finally any other considerations relevant to the execution of the order. For the weighting of these factors in an appropriate manner, MiFID requires to apply different criteria that are explained in the following subsection.
3.1.3 Criteria

While MiFID determines the factors for achieving the best result in order execution – specified in Article 21 (1) and listed above – investment firms need to decide upon their relative importance. The regulation does not assign a ranking of priorities; it solely enumerates the criteria that should be taken into account for the weighting of these factors (Article 44 MiFID):

- characteristics of the client, including the status of the client as retail or professional
- nature of the client order (market, limit, etc.)
- characteristics of the relevant financial instruments (equity, bonds, etc.)
- characteristics of the execution venues to which an order can be directed.

In our studies, we also addressed the relevance of these criteria for German investment firms. The respondents attached first priority to the characteristics of the relevant financial instrument followed by the characteristics of the client in terms of retail and professional client (client classification) and the characteristics of the execution venue. The nature of the order appeared to be of lower importance – see Figure 4.
3.1.4 Venue selection

Investment firms have to select and list in their best execution policy those venues that enable the investment firm to obtain on a consistent basis the best possible result for the execution of client orders. MiFID does not prescribe explicitly a certain number of venues. Figure 5 depicts the venue selection and follows a three-step process. First, all existing venues have to be identified, i.e., Regulated Markets, Multilateral Trading Facilities as well as Systematic Internalisers (existing venues). In the next step, investment firms will have to decide which of these venues they wish to offer to their clients for transaction purposes (offered venues). It is likely that the number of offered venues is smaller than the number of existing venues owing to costs of access. Finally, a subset has to be extracted from the population of offered venues. This sample then constitutes those venues that enable the firm to achieve the best possible result for client orders (best execution venues). Nevertheless, clients can use specific instructions to access venues in the sample of offered venues.

Figure 5 Venue selection

In the following, we apply these principles and examine the practical implications for the venue selection process. Due to the different operational environments, the implementation of best execution may obviously vary from one investment firm to another, as each firm will have its own way to conduct business with their clients. Business strategies, current practices and existing procedures are specific for the individual firm and enable competitive differentiation. MiFID also enforces the review and monitoring of the execution approach, information disclosure as well as prior client consent to the execution policy. Such a review has to be carried out at least annually or when a material change has occurred. For example, in a situation where a new venue with relevant liquidity enters the market or a financial instrument is delisted, the investment firm should amend the policy. In addition, MiFID requires investment firms to inform clients about the content respectively updates of the policy in an appropriate manner. The level and type of information provided varies depending on the investment firm’s business model. In the next section, we will discuss the set-up of a best execution policy and the corresponding execution arrangements.
3.2 Process and IT requirements

MiFID considers the best execution to be a process (European Commission, 2006b) and requires investment firms to set up adequate provisions for achieving the best result on a consistent basis. Although broadly discussed in the financial community, a clearly defined practice for the implementation has not emerged yet. MiFID introduces a number of regulatory constraints without providing guidance for the implementation of these requirements. Investment firms are obliged to establish a best execution policy as well as to define effective execution arrangements within their organisation. In analogy to CESR’s definition, the best execution policy is understood “as a statement of the most important and/or relevant aspects of those execution arrangements”. (CESR, 2007b). The contents of such an execution policy at least has to refer to the following aspects: First, it should point out the investment firm’s strategy for obtaining the best possible result for their clients, i.e., what are the key steps to comply and how do these steps enable the investment firm to obtain the best possible result. Second, the discussed factors and their relative importance (see Subsection 3.1) have to be included in the execution policy, i.e., how do these factors influence the venue selection process and decision. Third, the execution policy should provide a list of all venues qualifying for best execution (CESR, 2007a). In summary, the execution policy documents the essential provisions of an investment firm for communication to its clients, i.e., it expresses the external view.

The investment firms’ internal set-up is likely to be more complex. Such provisions are covered by the execution arrangements, which “are the means an investment firm employs to obtain the best possible result …” (CESR, 2007a). This interpretation implies that the execution arrangements exceed the scope of an execution policy and also include strategic aspects or amendments of the existing practices and procedures to comply with the best execution requirement.

The key challenge for investment firms arises when it comes to the practical implementation of the best execution obligation, i.e., which processes and systems require amendments to obtain the best possible result. Technical provisions comprise a specific set of rules that transform the parameters of an order (ideally) electronically into an order routing decision to a specific execution venue. The characteristics of such a best execution policy result from a combination of the previously mentioned factors, criteria and execution venues and may differentiate between a number of categories such as client, instrument class, order type, execution venue (RM, MTF, SI) and location (domestic/non-domestic). In the following, three basic concepts for implementing the best execution obligations are discussed:

The first scenario is based on a rule framework to allocate incoming orders to the best possible execution venue. Second, a more sophisticated approach is described by including current market data into the execution decision. Finally, client orders may require technically sophisticated order routing provisions or the intervention of a human trading desk owing to their specific attributes.

3.2.1 Rule framework

The rule framework can be interpreted as a static approach, i.e., based on one or more order attributes a best execution venue is pre-defined. MiFID leaves the definition of the rules to the investment firms. Depending on their product range and client structure,
different combinations of criteria such as client type, nature of the order or instrument class may be considered. However, CESR’s interpretation suggests a minimum level of differentiation including the definition of a number of subsets within an execution policy, if appropriate (CESR, 2007a). An investment firm “will need at least to address the different classes of instruments for which it carries out orders” in its execution policy. In addition, the execution policy “will also need to address the distinction between retail and professional clients to the extent that the firm treats each such category of clients differently” (CESR, 2007a). Further differentiation of the execution policy is not mandatory and the decision is left to the investment firm, for example to further distinguish by order type (CESR, 2007a). Thus, the minimum set-up of such a rule framework takes into account two aspects: First, different classes of instruments need to be defined, i.e., instruments with similar characteristics (equity, bonds, derivatives, etc.) are grouped into one category. Such a category may also cover instruments of an entire market segment, a certain index or even according to geographical origin. Second, the different instrument classes are linked to client categories (retail/professional), if a distinction is necessary owing to different treatment of the orders. For example, all retail client orders in domestic shares (criteria) are executed in the most significant national stock exchange (factors). Table 1 shows a sample rule framework that connects the criteria and the factors as laid out in Subsection 3.1 to determine the appropriate execution venue. Such an allocation delivers a definite result; in this example (first row) the rule framework links the order of a retail client in a liquid share exactly to one appropriate venue (Venue A). This set-up allows a flexible combination of parameters (criteria, factors, venues) according to the business requirements of investment firms. Note, that for illustration purposes the criterion ‘order type’ (market/limit) – constituting an optional requirement – is already included in this example. While the rule framework per definition always suggests exactly one execution venue, real-life trading involves more complex circumstances.

**Table 1**  
Weighted rule framework

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Factors (weighted)</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client type</td>
<td>Instrument class</td>
<td>(Order type)</td>
</tr>
<tr>
<td>Retail</td>
<td>Equity</td>
<td>Market</td>
</tr>
<tr>
<td>Retail</td>
<td>Equity</td>
<td>Limit</td>
</tr>
<tr>
<td>Retail</td>
<td>Bonds</td>
<td>Market</td>
</tr>
<tr>
<td>Professional</td>
<td>Equity</td>
<td>Market</td>
</tr>
<tr>
<td>Professional</td>
<td>Bonds</td>
<td>Limit</td>
</tr>
</tbody>
</table>

In the following, it is assumed that an incoming order can be executed in more than one venue. All other parameters remain unchanged. This scenario typically occurs when the characteristics of several venues fulfil the MiFID requirements delivering the best possible result. Investment firms can resolve such an indifferent condition for the rule framework by implementing a decision mechanism. A simple approach to allocate the
order to a corresponding venue could be based on specific business or technical requirements or could also follow a random selection process. MiFID does not prescribe investment firms to react in a certain way unless the outcome provides the best possible result for clients.

All these approaches have two aspects in common. First, investment firms need to assess their product range (instrument classes) and client structure (retail/professional) to determine the appropriate level of differentiation. Second, the rule framework always provides exactly one pre-defined execution venue either by definition within the policy or after a decision process is completed, and an appropriate venue has been selected. However, the client benefits of static approaches are limited. An increase in execution quality can be achieved by including current market data into the process of venue selection.

3.2.2 Real-time market data

In this scenario, the appropriate execution venue is selected on an order-by-order basis, which is an assumption that exceeds the current MiFID requirements. Instead of executing client orders according to the process defined in the execution policy, each order is treated in an individual manner. Unlike the static approaches, current market data feeds are attached to the rule framework and investment firms need to interface with providers to receive the relevant information. Such provisions enable a real-time evaluation and support a dynamic allocation to the execution venue offering the best conditions at the time of order entry. The real-time comparison allows an optimised selection between venues increasing the quality of an order execution but it may also be involved with higher costs of implementation.

3.2.3 New order execution tools/human trading desk

Under some circumstances, the rule framework is not capable to automatically allocate a client order to a corresponding execution venue owing to the nature of the order, for example when the order exceeds the typical market size. Classified as exceptions to the rule framework such orders require specific order channelling and handling decisions (Ende et al., 2007). Investment firms may decide to execute the order by using smart order routing systems or algorithmic trading tools that split up the overall orders in time slices on one market or send parts of the order in parallel to multiple markets. In case of high order complexity, the order may even be transferred to a human trading desk. The trader manually processes the order in the clients’ best interest and initiates appropriate actions such as splitting the order and partial submission to different execution venues.

In summary, we have briefly described three concepts for the implementation of the best execution obligation. On the basis of the rule framework, additional scenarios were developed including real-time market data feeds, smart order routing and algorithmic trading facilities. Such an order-by-order allocation presumably increases complexity, but investment firms may also achieve competitive advantages by providing new services with a higher execution quality to their clients.
4 Conclusion and outlook

Regulatory requirements will continue to influence the electronic banking and brokerage business. With MiFID, the European regulator tries to establish a new regime and to improve investor protection as well as market efficiency by increased competition between trading venues. Investment firms are subject to a number of key obligations, but MiFID also provides a certain degree of flexibility in terms of how to apply these rules to the existing business routines, organisational processes and IT systems.

In this paper, we identified that best execution constitutes a key principle of MiFID. Based on the regulatory requirements and two empirical studies, we analysed the interplay between different factors and criteria as well as the challenges involved with venue selection. Due to different factor weightings, execution obligations may vary between retail and professional clients. A sensible approach would be to consider such specific characteristics in an investment firms’ policy allowing differentiation according to the status of a client.

Therefore, different scenarios and their implication for processes and IT systems were discussed. On the one hand, the rule framework referred to as a static approach represents a very simple way of achieving MiFID-compliance. On the other hand, more sophisticated approaches referred to as dynamic approaches allow an order-by-order allocation, but require connecting to sources of current market data or technical provisions to apply smart order routing systems or algorithmic trading tools. In the two MiFID studies, about one-third of the investment firms recognised a potential for competitive advantages associated with the best execution obligation. Thus, different policies and execution arrangements are likely to emerge.

The MiFID regulation sets another milestone towards a harmonised and transparent European Electronic Banking and Brokerage Industry. The potential convergence of different types of trading venues and the tightened investor protection regime represent two fields for further research. The order-by-order execution approach could offer opportunities for new market entrants, which impact the business of the established market participants leading to shifts of liquidity. In addition, clients would face a large number of execution policies. The development of a framework that classifies and evaluates the best execution policies can support clients in deciding between policies, i.e., between different banks or brokerage firms.

Acknowledgement

We thankfully acknowledge the support of the E-Finance Lab, Frankfurt, for this work.

References


Website