

Research Report

Order Handling of Institutional Investors

THIS SURVEY REFLECTS THE ASSESSMENT OF THE LARGEST EUROPEAN INSTITUTIONAL INVESTORS ON NEW TECHNOLOGY-DRIVEN EXECUTION OPPORTUNITIES WHICH ENABLE THEM TO PERFORM SELF-DIRECTED TRADING.

Peter Gomber
Markus Gsell

Bartholomäus Ende

Introduction

In the securities trading industry, institutional investors like asset management companies or hedge funds traditionally delegate order execution to brokers as intermediaries. Core competencies of brokers in order execution are the identification of counterparties, the choice of suitable trading venues as well as the execution of large order volumes without adverse price movements (market impact).

With an increasing automatization of the trading process, technological innovations like *Direct Market Access*, *Algorithmic Trading* or *Smart Order Routing* change the interaction between institutional investors and their brokers: Direct Market Access enables institutional investors to use a broker's infrastructure to directly forward orders to securities markets without being touched by the broker anymore. It provides lower fees and increased execution speed which enables investment companies to even take advantage of short-lived market opportunities. Algorithmic Trading and Smart Order Routing

are built on the basis of Direct Market Access. Algorithmic Trading is based on mathematical models exploiting historical and real-time market data to determine how to slice and time large orders to avoid market impact. Smart Order Routers perform an automated search for trading opportunities across multiple markets and route suborders to the most appropriate combination of markets.

The adoption of these innovations enables institutional investors to take control of their orders instead of delegating execution responsibility to an intermediary. Therefore, the use of these technologies and the self-directed order execution by institutional investors is defined as *non-delegated order handling (NDOH)* (see Figure 1).

A recent survey of the E-Finance Lab reflects the assessment of large investment companies concerning non-delegated order handling and the new execution opportunities. Further, as not all institutional investors decide to employ non-

delegated order handling it aims at investigating factors that foster adoption and refusal.

Data Sample

As the setup of non-delegated order handling incorporates relevant investments in the technologies mentioned above, the focus of the study has been set on the largest European institutional investors: Namely the top 500 European institutions in terms of assets under management (AuM) which cover 95.4% of the total AuM in Europe. For sound results, four pretests were conducted; two in Germany and two in the UK. Within each institution the corresponding process owner has been personally contacted to ask for participation in the survey. Finally, 39 out of 41 responses from process owners could be evaluated. As desired, the data represents predominantly large institutions as it covers about 28% of

the total AuM in the sample. In the following the key results will be presented both descriptive and in terms of a causal model that tries to explain both drivers and inhibitors of the technology adoption.

Perception of new Trading Technologies

Concept of NDOH is well-known – A vast majority of 89.1% is aware of the advantages and disadvantages of the new trading technologies. Moreover, 61.1% of the process owners state that they employ the concept of non-delegated order handling. However, fax and phones still remain the technology most often used for the handover of orders to brokers.

Positive attitude towards technology – A common belief exists that technology in general helps to reduce overall costs (91.8%). Further,

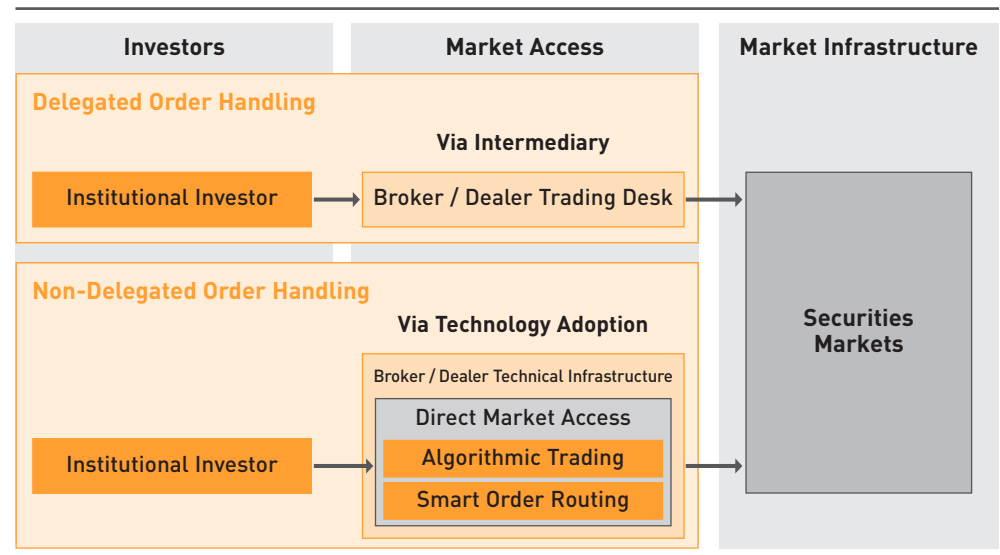


Figure 1: New opportunity set for the handling of institutional orders

79.5% are convinced that technology is a necessity to be successful in a competitive environment. This is crucial, as a vast majority perceives an intense competition for market share (94.2%) and net performance (88.2%) in their industry. More than two-thirds of the respondents assess this pressure to be even increasing and about half of them believe that institutional investors making use of non-delegated order handling are more competitive. Another 48.6% state efficiency gains to drive the adoption decision concerning new trading technologies.

NDOH is compatible with trading requirements – 60.6% perceive non-delegated order handling to be suitable for their order flow characteristics in general (see Figure 2). These characteristics can be further detailed by requirements concerning large order sizes as well as high demands for urgency and anonymity: The typical problem of large orders is that they incur market impact. Urgent orders lead to a similar effect as they try to benefit from short-lived information, which precludes distributing their execution over time. Finally, demand for anonymity exists if institutional investors have to trade large volumes while keeping the initiator of the order and the overall trade intention secret. Concerning these characteristics, Figure 2 highlights that 42.4% of the institutional investors assess non-delegated order handling adequate for large order sizes, 45.5% for high urgency demands and even 66.7% for high anonymity requirements. Finally, 64.6% see non-delegated order handling to provide trading control, e.g. to allow for quick modifications and cancellations in volatile markets.

Positive effects are attributed to NDOH – In general, 72.2% of the process owners regard non-delegated order handling to be useful for their trading activities: They claim that this kind of order handling increases the success of their trading desk (65.7%). More than half of the respondents believe this concept to increase execution quality. Thereby returns anticipated by asset managers (portfolio alpha) can be preserved.

Fear to miss valuable broker services – Among the respondents, 52.7% are engaged in commission sharing agreements. These are special arrangements which determine how e.g. broker-provided research services are compensated by trading commissions. Nevertheless, a majority of over two-thirds does not perceive their brokers' financial conditions to be too attractive to omit non-delegated order handling. But 51.5% of the process owners are concerned that by performing this way of order handling they might miss valuable services provided by their brokers.

Results of the causal model

For the identification of factors that facilitate or hinder the adoption of non-delegated order handling a causal model has been developed. It is based on theoretical constructs that have been measured via the process owners' assessments. Each of them is composed of questions trying to grasp an individual aspect of the respective construct: For instance, performance expectation shall capture all kinds of performance enhancements for an institutional investor employing non-delegated order handling. Therefore this construct captures whether the new technolo-

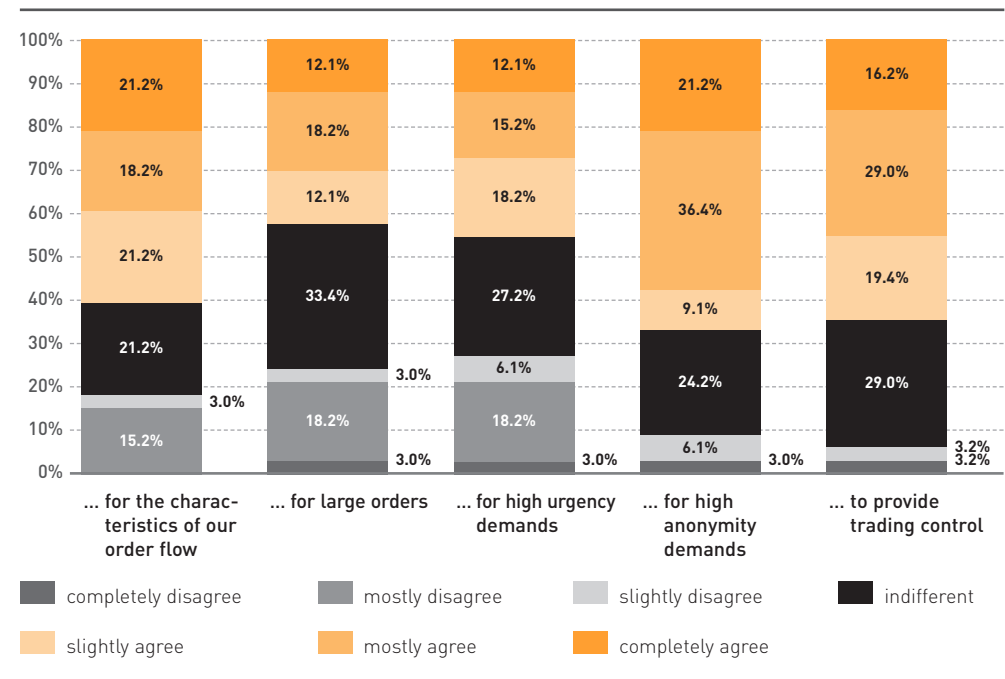


Figure 2: Suitability of non-delegated order handling ...

gies ease the trading task, improve its outcomes by preserving portfolio alpha or improve execution quality.

Based on existing literature on technology adoption and by performing expert interviews potential effects among constructs were hypothesized. The surveyed data was then used to statistically validate these theoretical relationships among the constructs. Both, factors inherently originating from the trading task (internal factors) as well as environmental ones that cannot be controlled by the institution (external factors) were considered: Internal factors include assessments of how the capabili-

ties of non-delegated order handling fit to the trading requirements, assessments of the expected performance as well as assessments of the efforts involved with its utilization. External factors consider assessments of competitive pressure and contractual barriers.

Task-Technology-Fit is the strongest driver – It emerges that the fit between the perceived capabilities of non-delegated order handling and the trading task requirements is the main driver for a process owner's adoption decision. That way fit affects this decision on two levels (see Figure 3): On the one hand it drives performance expectations and on the other it

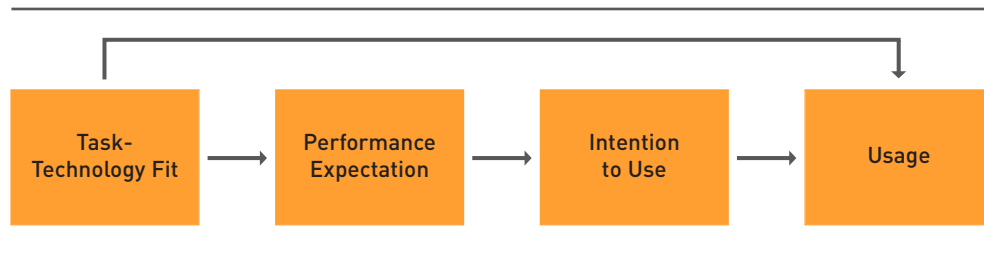


Figure 3: Chain of strong causations among internal factors

directly enforces the actual usage of new trading technologies. The results of an investigation of the factors that determine the task-technology fit are shown in Figure 4. This fit is mainly determined by the ability of non-delegated order handling to increase trading control. The second strongest factor is its ability to satisfy high anonymity demands. Finally, the fit also incorporates a technology's capability to comply with varying urgency demands of an institutional investor. Thereby, trading control allows fast responses to changing market conditions. Increased anonymity helps institutional investors to protect their large orders from being exploited by other market participants. Last but not least, the ability to satisfy varying urgency demands enables institutional investors to take advantage

of special trading venues, e.g. Crossing Networks that are designed for less urgent orders and that avoid market impact at the cost of lower execution speed and likelihood.

Chain of strong causations among internal factors – Fit is not only the strongest driver for a process owner's adoption decision. It also marks the starting point for a chain of strong causations which highlights the mode of action among internal factors (Figure 3): The better the employed trading technology fits the trading task, the more performance enhancements an adopting process owner can expect. Thus, fit drives performance expectations which in turn are the strongest predictor for the intention to adopt non-delegated order handling.

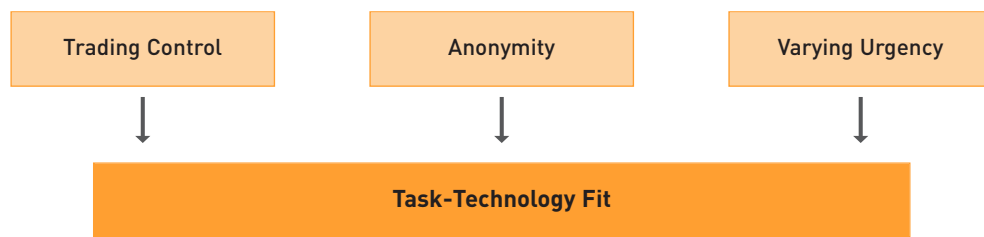


Figure 4: Factors whose satisfaction determine the notion of fit

Role of efforts remain unclear – Whereas performance expectations exhibit a strong impact on the intention to adopt, no clear conclusion can be drawn concerning the effect of effort expectancies. For the costs involved in setting up and operating non-delegated order handling no effect on the intention to use could be shown. Only a weak negative influence on performance expectations could be proven. This phenomenon might be attributed to the focus of the survey on large institutional investors and the strong economies of scale for non-delegated order handling.

External factors exhibit weak influence – Although descriptive statistics depict the perception of strong competitive pressure among institutions, this exhibits only a weak influence on the process owners' intentions to adopt non-delegated order handling. The same holds true for the usage of commission sharing agreements that might be interpreted as inhibitors for a substitution of broker intermediation by technology-driven execution opportunities. Nevertheless, contractual barriers like these agreements or other financially attractive broker contracts exhibit a slightly higher influence on the intention to use than the competitive environment.

Conclusion

Institutional investors are well aware of the potential that the concept of non-delegated order handling, i.e. the usage of technologies like Direct Market Access, Algorithmic Trading or Smart Order Routing, provides for their order execution tasks. They see it to be compatible with their trading requirements and to be useful for their trading activities.

From the causal model, one can conclude that the decision to adopt non-delegated order handling is mainly driven by internal factors, i.e. expectations concerning the performance of the trading technology in question and its fit to the given trading task. Thereby, the fit of the employed technologies is of utmost importance. It is mainly determined by the ability of technologies to provide trading control, anonymity and to satisfy varying urgency demands. As the expected effort associated with non-delegated order handling could only be explained partially, it seems to be obvious that there have to be additional factors exerting an impact on the perceived effort. Such a factor might be the risk perceived to be associated with the adoption, which is an avenue for future research in this domain.

References

Gomber, P.; Ende, B.; Gsell, M.: Order Handling of Institutional Investors. To appear in: Journal of Trading, 2009.

Ende, B.; Gsell, M.: Investigating the Buy-Side's Adoption Decision for Technology-Driven Execution Opportunities – An extension of TAM for an organizational adoption context. Proceedings of the 16th European Conference on Information Systems, 2008.

Ende, B.: Insights into Institutional Investor's Adoption Decisions Concerning Technology-driven Execution Opportunities. E-Finance Lab Working Paper, 2009.