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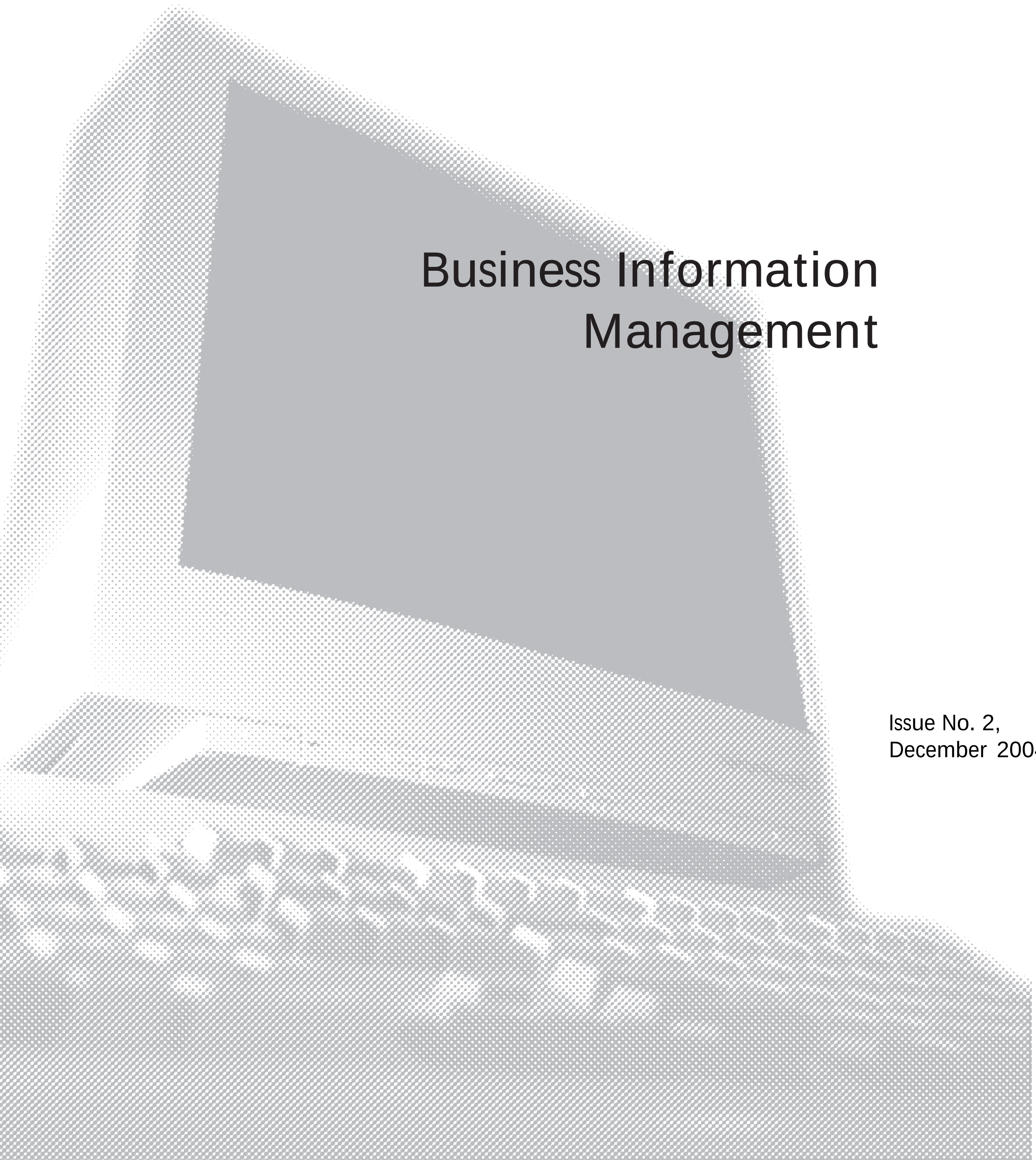

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Dr. Wolfgang Wicht, Michael Ankert, Alessandro Corsi

Transaction Banking for Electronic Brokerage – Multi-entity capable provision of execution for the Online Retail Brokerage Segment

Contents

Abstract

This article analyses the impacts on the brokerage business of existing market trends. It is here argued that the current situation shows the potential for insourcing offerings in the order routing / execution segment. Different models for execution service provisions are presented and evaluated.

1. Order Routing and Order Execution

In the generic "end-to-end" processing chain of a securities transaction (see Figure 1), order routing /execution are the activities related to forwarding an order to the execution venue and processing its execution confirmation.

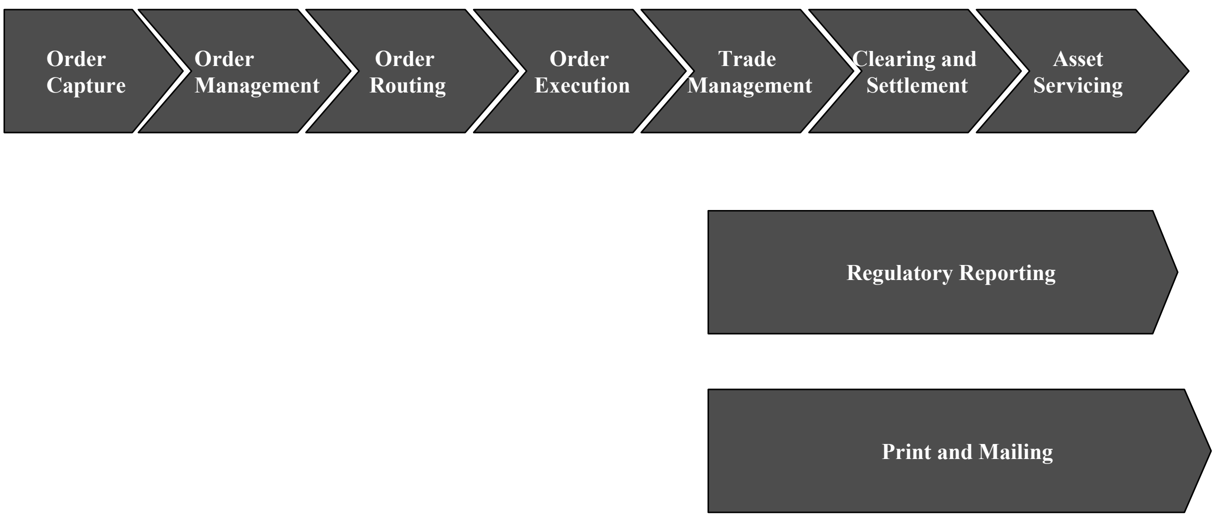

Figure 1: "End-to-End" processing chain

Following a period of continuous growth in the 90's, the burst of the equity bubble in 2000 and the recession in 2001 brought changes that are modifying the capital market landscape. Two drivers are affecting the order routing/ execution area:

- *The retail order flow is becoming an asset for trading desks:*
  The slump in equity prices of the last two years has sped up the redefinition of strategies of investment banking operations. Trading desks are increasingly moving away from risk taking positions and are focusing on transaction fee based brokerage business, in an attempt to avoid the increased price volatility. As a result, traders are looking at asset managers, but also directly at the retail order flow as sources of transaction volumes (potential for profits from brokerage fees) and customer contacts (potential for profits from cross-selling opportunities). The trend towards internalisation and definition of new trading models currently underway among major market players (e.g., Deutsche Bank) and taken into consideration also by Stock Exchanges (e.g., Deutsche Börse – Xetra Best) is a clear indication of how market players are trying to attract new business by offering lower transaction prices or "best execution";
- *Cost pressure:*
  since market prices volatility is weakening trading profits, broker/dealers are facing the need to reduce its own operating cost base, which is mostly driven by personnel costs. Exchanging personnel cost for IT investment (e.g., through increased automation of market access for agent trading or enhanced platforms for quote driven business) is a viable option only if the available transaction volumes allow for economies of scale. Provisions of brokerage services in the inter-bank sector and insourcing agreements are the options available to increase the share of transaction volumes processed and hence to reduce the exposure to its volatility.

Both drivers stress the increased relevance of the brokerage order flow volumes for investment banking operations. To understand how market players will react to this new market trend, two questions need to be answered:

- What are the available options to secure higher market share?
- Should all market participants pursue transaction volume growth, e.g., by developing a new trading model?

The answers to these questions depend on the position of the broker along the following dimensions:

- *Customer profile:*
  Market players will seek to acquire transaction volumes in the wholesale or in the retail market;
- *Offering profile:*
  market players are likely to seek differentiation from the competition either by stressing the execution capability (e.g., market access, new trading models), or by focusing on customer intimacy (e.g., end client product development, financial advice).

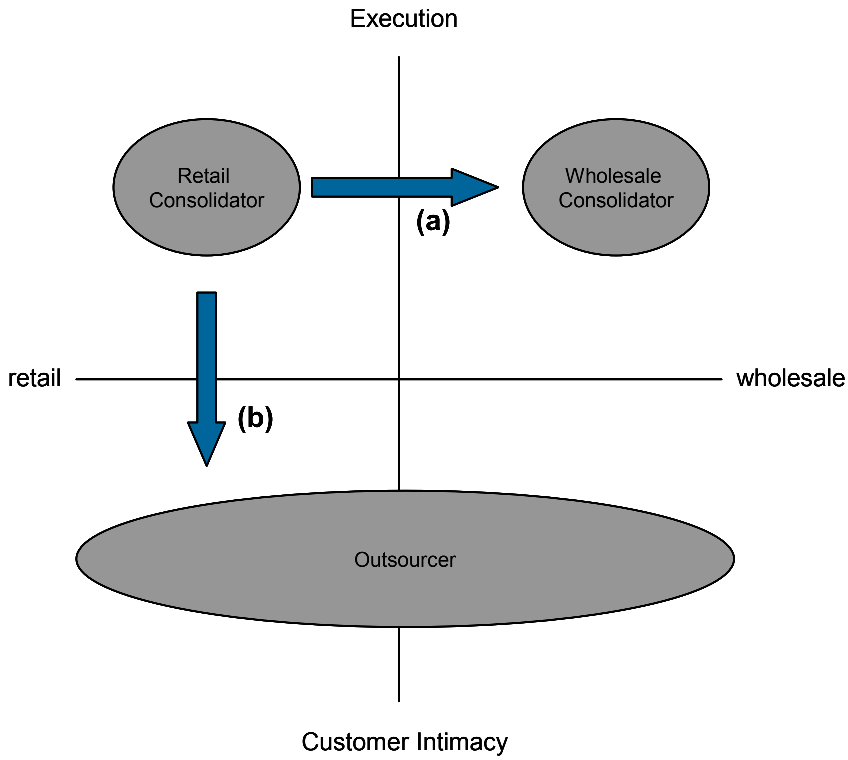

Figure 2: strategic options in the order routing / execution area

Figure 2 indicates how the position along the mentioned axis influences the strategy to be pursued by a market player:

- *Wholesale Order Flow consolidators:*
  institutions targeting the wholesale sector and focusing on execution capability will offer its services in the inter-bank sector, looking for insourcing opportunities. Key elements of this strategy are:
  - Compared to the retail sector, wholesale has a potential for better leveraging volume consolidation. On the other hand, such agreements and their implementation are characterized by complexity (integration between service provider architecture and customer's legacy systems) and political implications (customer's resistance to change, impact on the customer's balance sheet due to the sunsetting of legacy systems, …), which are the main risks for the success of this strategy;
  - These institutions consider execution capability to be a differentiating factor in the marketplace. They will have to invest considerably to implement scalable cost efficient platforms, able to support new trading models;
  - The acquisition of transaction volume is paramount for the success of this strategy. The IT investment builds a fixed cost block, which needs to be spread across the highest possible transaction volume (economies of scale);
  - High transaction volumes are essential to the success of internalisation models (trades are matched within the available order flow and forwarded to the stock exchange only if no internal match is available): the ratio of internal matches depends on the available transaction volumes;

- *Outsourcers:*
  institutions aiming at differentiation through customer intimacy will consider outsourcing to a certain degree the routing and execution capabilities. Drivers for this strategy are:
  - Execution capability is not seen as a differentiating factor in the marketplace and therefore investment in this area is kept to a minimum;
  - Order flow volume is an asset that can be sold in the outsourcing market, being rewarded through lower execution fees charged by the insourcer;
  - Outsourcing agreements relieves the outsourcer from part of the effort needed to upgrade to new trading platforms;
- *Retail Order Flow consolidators*:
  these institutions focus on the retail market and stress execution capabilities. They will develop new trading platforms, but will not offer them in the wholesale market. Characteristics of this strategy are as follows:
  - Target of this strategy is the acquisition of additional transaction volumes in the retail segment. Further growth by offering execution services in the wholesale inter-bank sector is not pursued, either for fear of loosing a competitive advantage, or because the available capability wouldn't be able to support the needs of an institutional customer (e.g., scalability constraints or limited reporting functionality);
  - Retail consolidators face an additional risk, compared to wholesale consolidators:
    institutions pursuing retail consolidation face IT investments of the same size as wholesale consolidators. At the same time they are exposed to additional margin pressure, due to the effects of wholesale consolidation spilling over to the retail market.
    The reduction of transaction prices in the wholesale market due to order flow consolidation will be pushed through to the retail prices. Its better consolidation leverage, combined with the fact that both retail and wholesale consolidators face the same IT investments will result in superior economies of scale in the wholesale sector, which can reduce the pricing power of retail consolidators. The magnitude of this effect depends on the degree of consolidation in the wholesale sector;
  - Institutions not willing to accept the risks associated with this strategy will redefine its positioning:
    - By offering its execution capability in the wholesale segment, therefore shifting the focus from retail to wholesale customers and becoming Wholesale Order Flow consolidators (Figure 2 – Option (a));
    - By redefining its offering profile from execution capability focus to customer intimacy. By doing so, they will become natural outsourcing candidates (Figure 2 – Option (b)).

The described strategies envision the evolution of the Order Routing/Execution along the following lines, which stress the potential for order flow consolidation and insourcing agreements:

- Investment banks through their broker /dealer units are in the market as wholesale consolidators;
- Retail banks will look for outsourcing offerings, on top of the currently available provision of execution brokerage services;
- The path for direct brokers is not as neatly defined; the mix of retail and execution capability focus force them to either try the retail consolidation path, or redefine its positioning along the lines of customer profile and offering focus;
- Universal banks will have to strike a balance between their wholesale and retail focus:
  - The market is already showing a trend to consolidate order routing/execution in one organizational unit under the control of the wholesale broker/ dealer unit,
  - Whether wholesale brokers will be limited in offering its services to competitors on the retail banking side depends on the internal balance of power between wholesale and retail unit.

2. *Transaction Banking*

Outsourcing is becoming a familiar concept in the financial services industry in continental Europe, and in particular in the processing of securities transactions. Players with a strong presence in the securities custodial marketplace, either locally (e.g., Societe Generale in France, bws in Germany) or globally (e.g., Deutsche Bank) realised by the end of the 90' that securities transaction processing is a volume business, with a direct relation between profitability and number of transactions processed: given that this industry segment is characterized by a substantially high fixed cost base (in excess of 60% of the overall operating costs), the path to profitability is one that tries to reach economies of scale by increasing the transaction volumes processed.
In order to explicitly target economies of scale, such players set then up transaction banks to offer business processes to other market participants, which could benefit from the following:

- Substitution of its own fixed cost (B /O personnel and IT platform) through variable cost: transaction banks charge a fee for each transaction processed;
- Reduced need for management attention in areas not considered to be market differentiating (B/O processing), and ability to reallocate that capacity to strategically relevant activities (i.e., customer acquisition, advisory, customer relationship management);
- Higher service quality, as services are provided by a specialized provider;

Historically, Transaction Banking is an evolution of custodial service providers: the traditional offering of a custodian is limited to providing access to the clearing and settlement infrastructure of a specific market, or set of markets; the user of such services still needs to set up internal processes to perform clearing and settlement of transactions. Transaction banks go one step further, by internalising such processes; in the post order execution segment, the customer is left with a control function, to manage the services provided by the transaction bank, and as required by internal audit and regulatory bodies. As a result, given its roots in the custodial business, the traditional transaction banking offering concentrates on the provision of services after order execution on single customer and custody omnibus level.

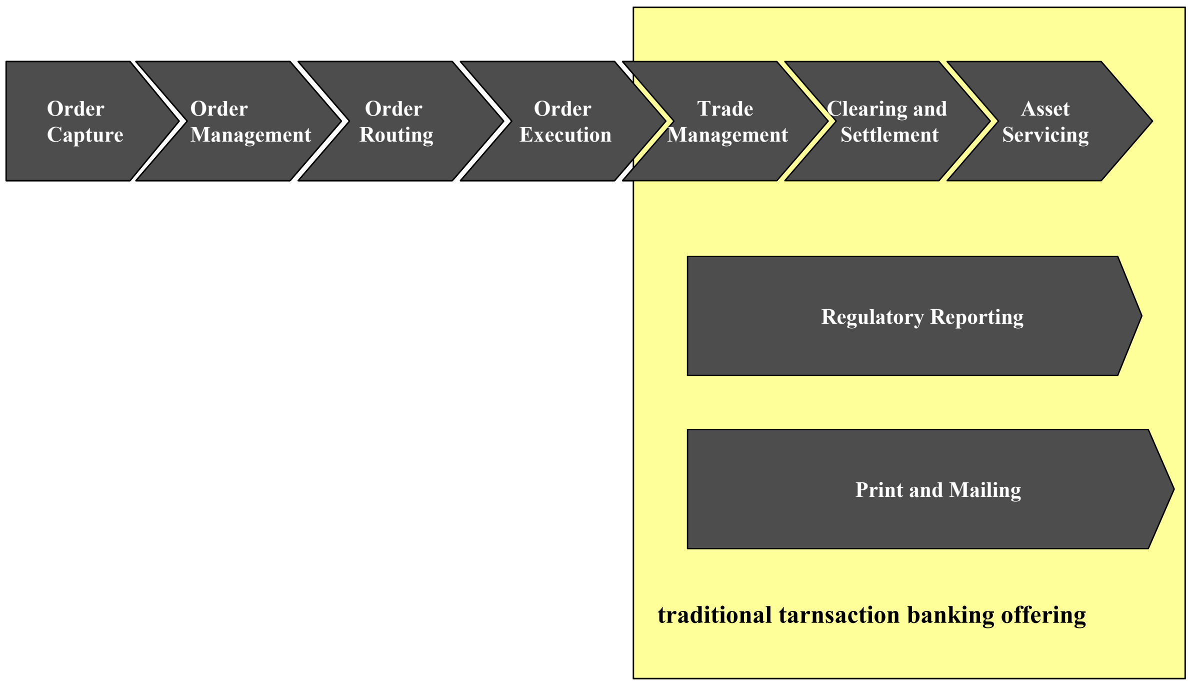

Figure 3: Traditional transaction Banking offering

Services traditionally offered by a transaction bank are (Figure 3):

- Trade Management:
  Trade Management covers the sub processes for capturing the order execution confirmation, generation of the contract note for the buyer and seller, initiating the cash and holding updates and performing reconciliation services for trades;
- Clearing and Settlement:
  Release of settlement instructions either free of payment or against payment, monitoring the pending settlement instructions, managing the cash payments resulting from security transactions, handling of late deliveries and performing reconciliation services. This will also include the processes required for registered share handling;
- Asset Servicing:
  Part of asset servicing functionality are handling of dividend and coupon payments, tax reclaim services, mandatory and voluntary corporate actions, voting services for annual or extraordinary general meeting(s), handling of exercises and final maturity for warrants;
- Regulatory Reporting:
  Regulatory reporting covers all transactions depending on respective legal environment e.g. trade and position reporting scheme, cross border cash payments. The transaction service provider acts on-behalf- of the outsourcer;
- Print and Mailing:
  Print and mailing covers the creation and distribution of information via white mail as well as customer related confirmations e.g. deal contract notes, confirmations of balances for cash and/or security holdings;.

Key success factors for a transaction bank are as follows:

- Industrialized processing: the essence of transaction banking is maximum efficiency (high automation and operational excellence) in processing high volume transactions. Activities to be performed by the service provider need to be assessed against its potential for standardization and relevant transaction volumes. Efficiency gains are to be sought for high volume activities with a high standardization potential. Activities lacking these characteristics (e.g., customer specific activities) should ideally not be included in the offering. In case such processes need to be kept within the transaction bank (e.g., because of customer pressure), they need to be implemented separately from the standard chain, in order to preserve the manageability of the latter;
- Clear definition of the business service offered to external customers;
- Standardized input and output interfaces (APIs) between the transaction bank IT platform and the customer's legacy systems;
- Transparent, transaction oriented pricing, and ability to price separately standard activities and non standard, customer specific processes;
- Strong migration management skills: the industrialization requirement, i.e., the need for processing standardization, and the difficulty of building standard APIs (especially the interfaces to the customer's cash and reference data systems) are the major drivers for the complexity of migration projects.

The previous chapter has shown how the changes in the brokerage space are opening the order routing and execution segment to potential insourcing agreements between execution service providers of some sort and customers willing to sell their order flow. Nevertheless, additionally to the limits to the outsourced functions which are mandated by regulators, there is a limit to the business processes that a customer will be willing to outsource: client facing, market differentiating activities (e.g., providing financial advice) will in general not be outsourced, since customers will want to keep the contact to the end client, to exploit, among other, cross selling potentials. Candidates for outsourcing are the activities needed to manage the communication to the execution venue (routing, execution and validation processing, reconciliation). The next chapter shows what are the available options.

3. *Available Options*

Three components define the operating model of the business relationship between execution services providers and customers:

- *Market access:*
  the paramount function of the execution service provider is to grant access to the execution venues (stock exchanges and internalised trading platforms). This function includes routing the customer order to the relevant execution venue, processing its execution or its rejection at the execution venue and eventually forwarding the information back to the customer. An additional service is to perform an end of day reconciliation between the own order book and the information provided by the execution venue. These functions describe the minimum offering that an execution service provider must be able to deliver;
- *IT service:*
  the service provider will always run and maintain its own system and the connectivity to the execution venues. Additionally, it can provide a further service to its customer, by running and maintaining the IT platform needed by the customer to perform order management activities, i.e., routing the order to the service provider, processing execution and validation feedback received from the service provider and reconciling the customer's order book to the service provider's;
- *Business processes support:*
  customers will consider outsourcing also the business processes needed to support order management activities. Today the typical outsourcing offering is one where a service provider takes ownership of a transaction after its market execution and prior to sending the contract note to the end client. Nevertheless, there are signs in the market of a willingness to accept an offering that starts prior to market execution.

Three Operating Models result from the combination of the mentioned components:

- *Execution Broker (Figure 4):*
  this is today's market typical situation in which the service provider purely grants access to the execution venues. The customer must plug a messaging protocol (FIX, SWIFT, XML) to its own order management system (routing and execution) to communicate with the broker. In this case the service provider doesn't support the business process on behalf of the customer: the customer must still run the business processes needed to manage the connectivity to the broker (e.g., reject handling, execution processing).
  From a customer's point of view, this solution provides the quickest and cheapest integration path and, from a customer's point of view, it optimises time-to-market for an upgrade to a new execution venue, but it doesn't have the full impact on the operating costs of the customer, as it doesn't reduce IT expenditure on the legacy order management system and personnel cost for managing the communication with the broker. This solution is the easiest to implement for a broker as well, as it doesn't require the implementation of a multi-legal entity capable IT platform;

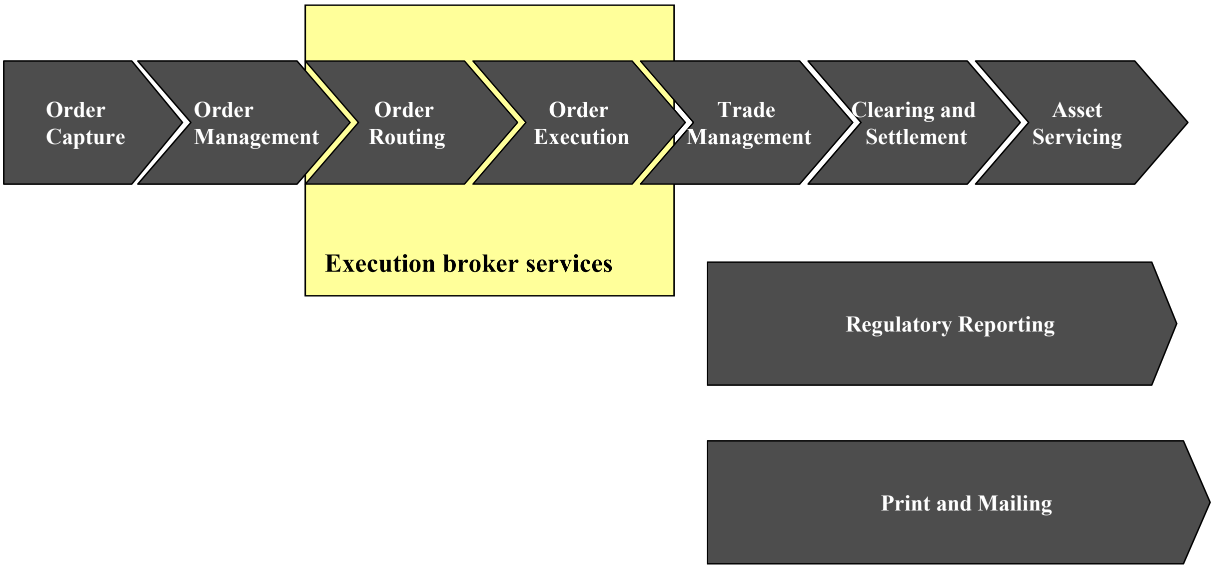

Figure 4: Execution Broker Services

- *Application Service Provider (ASP – Figure 5):*
  in addition to the Execution Broker offering, the ASP offering provides a ready to use order management system. The benefit for the customer is the reduction of IT expenditure (running costs of the order management system are pooled across customers); the benefit for the insourcer is the ability to lure in additional customers through the potential for additional IT expenditure savings. The downside of this approach is the increased integration complexity, which results in a longer timeline and higher costs: the order management system needs to be plugged in the legacy systems of the customer (customer static data, cash information to check on cash availability, depot information to check on stock availability, feed to the settlement system); the complexity of this task depends on the standardization of the order management APIs and on the quality of the customer's legacy system. Availability of strong migration management skills is the measure to minimize the associated implementation risk;

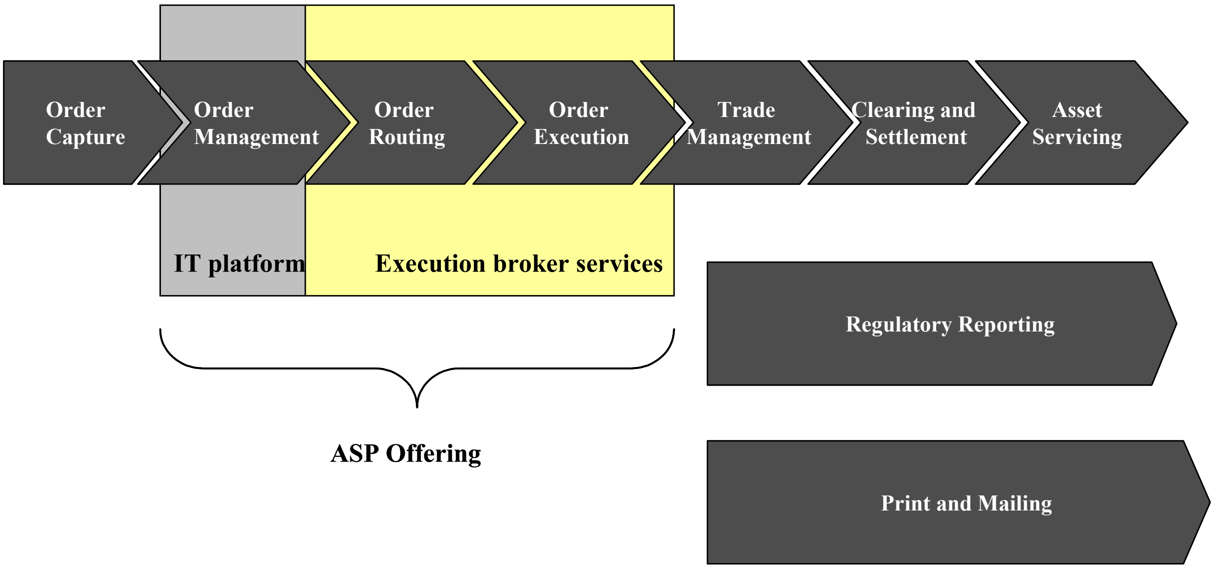

Figure 5: Application Service Provider

- *Business Service Provider (BSP – Figure 6):*
  The BSP offering takes into account provision of business process support as well, and is therefore the model with the highest saving potential for the customer, which provides all the advantages of ASP, plus personnel cost savings in the order management area, due to the outsourcing of business processes. As in the case of the ASP offering, strong migration management skills are paramount to deliver successful implementations of such model; nevertheless a full calculation of the related business case will have to factor in the effect of "one-off" redundancy schemes costs.

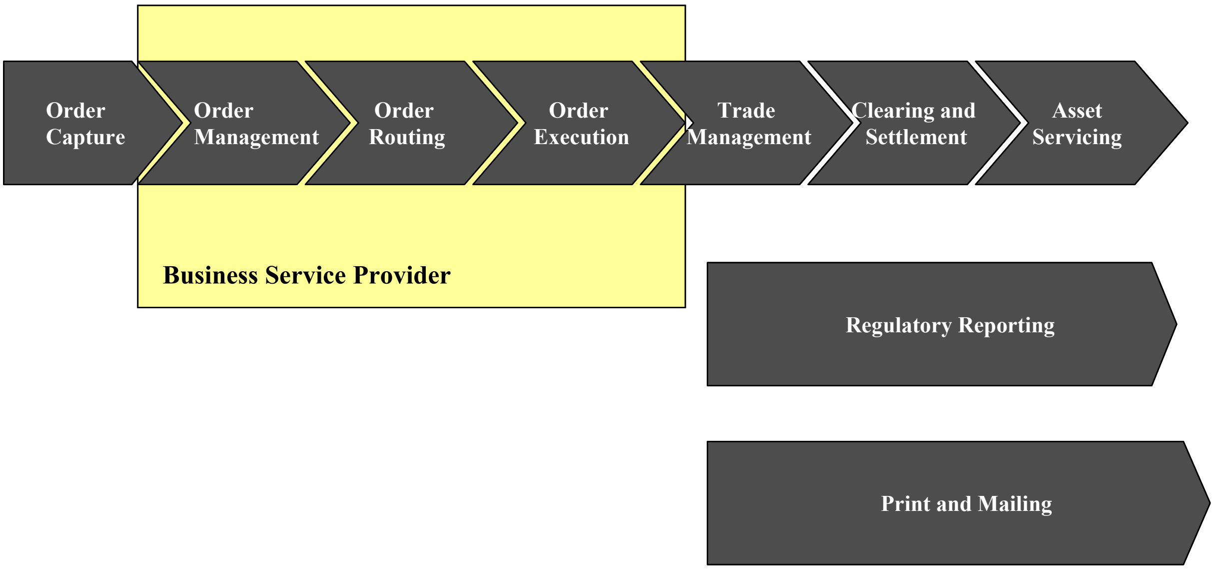

Figure 6: Business Service Provider

The following table summarizes the different offering, together with their pro's and con's:

Offering	Features	Pro	Con
Execution Broker	• Only execution venue access • No IT service • No business processes support	• Quickest and cheapest integration path • Higher transaction volume share secured (*provider perspective*)	• Limited IT expenditure savings (*customer perspective*) • Limited personnel savings (*customer perspective*)
ASP	• Execution venue access • IT service available • No business processes support	• IT expenditure savings (*customer perspective*) • Higher transaction volume share secured (*provider perspective*)	• Higher integration complexity • Limited personnel savings (*customer perspective*)
BSP	• Execution venue access • IT service available • Business process support available for non client facing activities	• Higher transaction volume share secured (*provider perspective*) • IT expenditure savings (*customer perspective*) • Personnel savings (*customer perspective*)	• Higher integration complexity • Highest migration costs ("one-off" redundancy scheme – *customer perspective*)

Brokers, transaction banks and outsourcing customers will determine the success of the different models along the following lines:

- In general, brokers will push for a pure execution broker service. From the consolidator perspective, this offering achieves the strategic goal, which is to secure a higher share of transaction volume, at the lowest cost and risk;
- In the cases in which brokers will agree on providing ASP or BSP services, they are likely to do so in cooperation with transaction banks (Figure 7). This is due to the following reasons:
    - ➢ Brokerage operations are subject to capital and regulatory requirements, which are more onerous than the ones transaction banks are subject to. Transaction banks will look at brokers to extend its offering in the pre-order execution segment, to lure in new customers. Transaction banks looking at extending its customer base by expanding the service offering in the pre-execution area are likely to look for cooperation opportunities with wholesale brokers;

- ➢ Transaction banks have, in general, the strong migration management skills which are needed to minimize the risk associated with the integration complexity;
- ➢ To provide ASP and BSP services, brokers need to plug into the customer's cash and securities systems. These interfaces are needed for the classical post-order execution transaction banking offering as well. The ability to provide standard APIs able to serve the full value chain is a competitive advantage for customers looking at outsourcing options;

- ASP services combine the same migration complexity as the BSP offering, without the need for "one-off" redundancy schemes expenditures, but delivering lower savings. Whether this model is going to be successful depends largely on the willingness of outsourcing candidates to face the cost of severance packages, both in financial and in public image terms. In a scenario in which redundancies are considered to be politically acceptable the BSP offering is likely to be more widely adopted.

4. Conclusion

This article argued that events in the capital market arena during the last couple of years have stressed the relevance of order flow consolidation and therefore opened an opportunity window for service providers in the pre – order execution segment. The expectation is that such services will be delivered largely along the lines of the following models:

- Traditional execution broker services, because of its limited integration complexity;
- BSP Offerings, because of its higher saving potential for the customer. Such offerings will be the result of cooperation agreements between execution service providers and transaction banks (Figure 7).

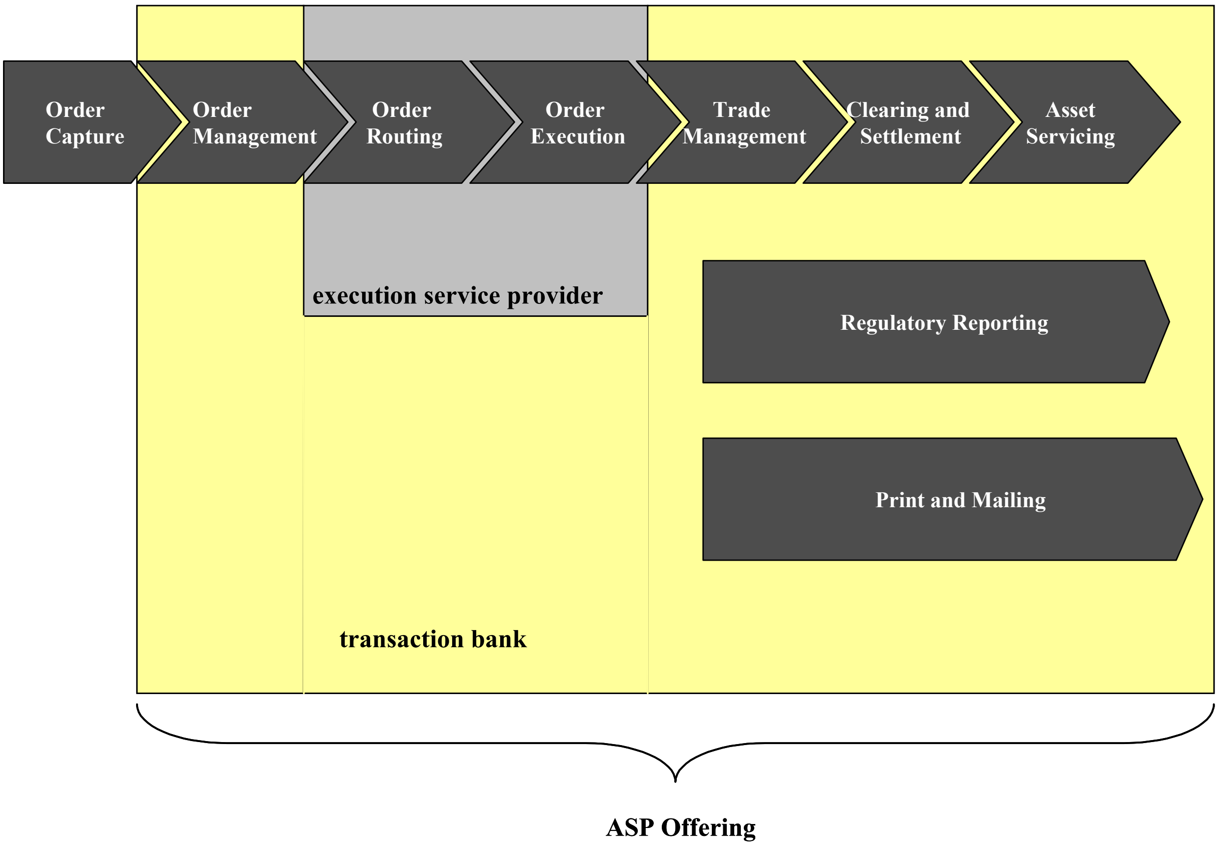

Figure 7: BSP offering in cooperation between execution service provider and transaction bank

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