

SWIFT e-invoicing consultation

October 2008

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1 Key findings

1. All banks are getting involved in business-to-business e-invoicing

The consultation process confirmed that banks are increasingly involved in e-invoicing. All but one of the 29 consulted banks already offer or plan to offer business-to-business (B2B) e-invoicing services. Most banks have started by first targeting the business-to-consumer (B2C) market. However, going forward, banks are more interested in offering e-invoicing services in the B2B area.

2. Years to positive ROI

Banks estimated that both in the B2B and B2C areas it will take roughly 5 years to reach positive ROI.

3. Winning with integrated services and reach

Banks felt that the competitive advantage of their B2B e-invoicing service was the wide set of functionalities offered and the unique way in which e-invoicing is integrated into and supported by existing banking channels and services. Banks also mentioned that reach, i.e. the ability for the corporate to reach a wide number of business partners, was another competitive element of their offering.

4. Reach is currently limited

Corporates are increasingly seeking improved efficiencies by centralising treasury functions. This leads to fewer banking relationships. In order to respond to corporate requirements, banks need to deploy wider geographic reach in their service network. The two primary ways to accomplish this are: a) extending the bank's own service network and b) partnering with other banks. Both in B2B and B2C, roughly half of the banks who provide e-invoicing services do so in one country. Banks' cooperation models are also largely yet to be defined. Slightly more than half of the banks supported, or intend to support, a 4-corner business model at product launch.

5. Wide set of service functionalities on offer

Both in B2B and B2C e-invoicing, banks offer a wide set of functionalities in their solutions. E-invoice presentment and payment, as well as customer-to-customer messaging are the most common functionalities offered by banks. An online banking platform is the most commonly offered channel for banks to provide e-invoicing services. File transfer is less utilised, especially in the B2C area. The ability to provide financing on the back of an e-invoice is often considered as one of the main drivers for banks to start offering B2B e-invoicing. However, only 11 of the 18 banks which are currently providing B2B e-invoicing, have implemented this capability.

6. Interbank e-invoicing standard needed

The lack of widely accepted standards is frequently mentioned as one of the current barriers for e-invoicing. Customer specific, local and regional formats are most commonly used. In a single bank scenario, the lack of a widely accepted standard is less of an issue for supplier-buyer interoperability. In a multi-bank context, complexities emerge in the interbank space if banks need to agree bilaterally which formats to support. Banks felt that the emergence of a widely supported e-invoicing standard within the banking industry, would improve the operation of an interbank e-invoice exchange network.

7. SWIFT's contribution expected

The consultation process suggests that e-invoicing has now matured to a level where banks feel that SWIFT should get involved. SWIFT's potential involvement was welcomed by 22 (76%) of the consulted banks.

SWIFT's core strength in providing interoperability of communication continues to be valued. Banks felt that SWIFT should support their e-invoicing business by providing an interbank e-invoicing exchange network and that SWIFT should support the emergence of a banking industry-wide e-invoicing standard.

The most popular functionality of a potential future SWIFT e-invoicing service was interbank messaging with online message validation. This was followed by message format conversion and a testing platform to ensure format compliance. Less supported were e-invoice presentment and document creation functionalities which may require real-time integration with banks online banking platform.

2 Situation analysis

2.1 Market overview

Definition: An invoice or bill is a commercial document issued by a seller to a buyer, indicating the products, quantities, and agreed prices for products or services the seller has provided to the buyer. An invoice is always the result of and is linked to other processes in the physical and financial supply chain. It lies at the crossroads of several areas of legislation, mainly VAT, accounting, payment, authentication, company transparency and data retention.

For the purposes of this consultation, an e-invoice is: *“The sending of an invoice ‘by electronic means’, i.e. transmission of data or making data available to the receiver using electronic equipment for processing (including digital compression) and storage, and employing wires, radio transmission, optical technologies and other electromagnetic means”* (EU Council Directive 2001/115/EC of 20 December 2001).

Market size: Research suggests that between 85-96% of the 27 billion invoices issued each year in the EU are still printed as paper and sent out in the post, while 90-97% of the 22 billion invoices in the US are also on paper. It is difficult to find statistics for other regions, but the general understanding, supported also by the existing legal environment, is that the traffic elsewhere is significantly less. SWIFT estimates that Europe accounts for 56%, North America 35% and Asia-Pacific 7% of the e-invoicing market.

Cross-border e-invoicing is still in its infancy, accounting for less than 2% of total e-invoice transactions. Cross-border e-invoicing is under-represented compared to overall transaction volumes. There are many reasons for this, such as legal uncertainties, cost of compliance, and geographic reach of existing service providers.

Market structure: The e-invoicing market is growing fast in terms of the number of participants, transactions and service providers. It is estimated that the number of participants and revenues will increase by 50% during 2008. There will be 340 and 100 service providers in Europe and the US respectively by the end of 2008. The market remains fragmented with 13 different service providers having 1% or more market share.

Revenue potential: According to estimates, the B2B solutions and services market in Europe and the US combined will amount to 1,5 billion EUR in 2010¹.

Economic importance: Electronic invoicing allows companies to streamline business processes as well as increase visibility to their financial supply chain and accounts receivable. Research indicates that large corporate customers pay up to 60 EUR for a single incoming invoice, whereas electronic invoices can be processed for 10% of the cost. The Corporate Action on Standards (CAST) project estimated that e-invoicing can save 243 billion EUR in Europe alone.

It is estimated that roughly 500bn EUR² of unnecessary working capital is locked up in the financial supply chains of Europe's top 1,000 corporates, due to poor visibility of payables and receivables. One major reason for this inefficiency is the huge volume of paper in circulation.

Banks role: E-invoicing has attracted increased interest within the banking community over the last couple of years. Banks' interest in e-invoicing has been twofold: 1) to provide a platform for customer to customer communication of e-invoices and 2) to provide e-invoice integration with existing cash management and supply chain services.

Offering an e-invoicing solution represents an added level of sophistication to the core banking service proposition that banks offer to their corporate customers. This business has the potential to become a differentiator in the marketplace and serves to complement traditional product offerings in transaction banking.

¹ Koch, B. E-Billing / E-Invoicing, Market Comparison Europe – US, http://www.billentis.com/ebilling_e-invoicing_comparison_europe_us_07.pdf, May 2007

² Hackett REL Consultancy. International Payments Conference, March 2006

2.2 SWIFT's current role

As recommended by the Trade Services Advisory Group (TSAG) – advisers to the SWIFT Board - in April 2007, SWIFT has been following industry developments focused on facilitating harmonisation and interoperability in this area.

- SWIFT is currently participating in an e-invoice standardisation working group hosted by UN/CEFACT TBG5. The purpose of the working group is to ensure that applicable financial industry requirements defined in ISO20022 are built into the next version of UN/CEFACT Cross Industry Invoice (CII Version 2).
- SWIFT supports the EU Commission Expert Group on e-invoicing which began its work in February 2008. Markus Hautala from SWIFT is a member of the Expert Group in his personal capacity.
- The EBA has created an e-invoicing working group to produce a draft roadmap which sets out possible approaches to engagement by the banking industry and the EBA community with e-invoicing. SWIFT is participating in this working group as an observer.

2.3 The SWIFT e-invoicing consultation process

At a TSAG meeting held in January 2008, SWIFT was asked to explore commercial opportunities to determine the business justification for SWIFT to take a more pro-active role in e-invoicing. Following this request, SWIFT undertook a community consultation with the following more specific objectives:

- to understand banks' current and future service offerings
- to understand banks' business and technology needs
- to seek insights on how SWIFT should support banks in this area
- to explore the potential role for SWIFT to provide services to banks in this area

The Top 50 MT103 banks were invited to take part in the consultation, to which 29 banks responded. The main findings of the consultation were presented to the TSAG at Sibos on September 15th 2008.

2.4 Next steps for SWIFT

The TSAG suggested that SWIFT continues with its current activities ensuring that a global perspective is taken at all times. Current consultation indicates that there is an industry desire for SWIFT to engage more proactively in Europe.

- (A) In the short term SWIFT should increase its cooperation with the EBA to assess the potential role and collaborative levels for banks in e-invoicing. Additionally, SWIFT should continue to promote the use of SWIFTNet as a communication channel for e-invoices via the FileAct service. This service is available in the corporate-to-bank and bank-to-bank spaces.
- (B) To avoid industry duplication SWIFT should await the initial outcome of the EBA working group's and the EU Expert Group's activities before taking bolder steps. Thereafter, SWIFT should form an Ad hoc Advisory Group to deliver against the following objectives:
 1. To articulate and test a business case for an interoperable e-invoicing platform. This could range from re-using SWIFTNet messaging services as an interbank e-invoice exchange to the provision of a set of common utilities (e.g. testing, format conversion, archiving, compliance) to support banks' e-invoice service provisioning.
 2. To identify the key functionality and the role of SWIFT and other parties in the provision of this capability. Other entities would bring key components to this offering.

Based on the recommendations of the Ad hoc Advisory Group, SWIFT would engage with TSAG and the BPC in determining the prioritisation of potential service offerings as part of the wider SWIFT product portfolio.

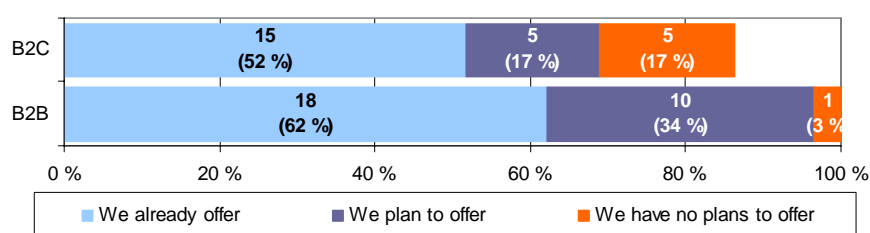
3 Detailed findings

3.1 Banks entry into the market

The Top 50 MT103 banks were invited to take part in the consultation process, out of which 29 banks responded (= 58% response rate). 18 of the responses were received from Europe, 4 from North America and 3 from Asia Pacific.

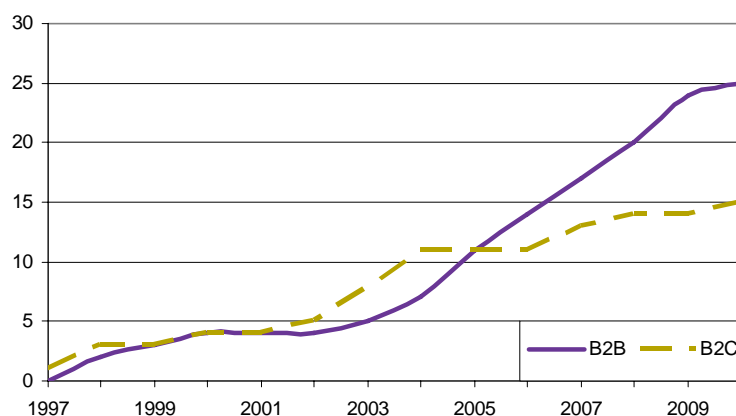
The consultation confirmed that banks are increasingly involved in e-invoicing. In total, 28 out of 29 (= 97%) of these banks already offer or plan to offer B2B e-invoicing services. 18 already provide and 10 plan to offer such services. Only one bank had no plans to offer B2B e-invoicing or related services. 20 banks confirmed their interest in offering B2C e-invoicing services. 4 banks did not respond to the business-to-consumer section of the consultation - the actual number of banks providing these services is known to be higher.

Figure 1: "Do you offer or do you have plans to offer B2B / B2C e-invoicing or related services?"



As the figure below suggests, most banks have started by first targeting the B2C market. However, going forward, banks seem more interested in offering e-invoicing services in the B2B area. Not all banks disclosed their timeline, hence the discrepancy between Figures 1 and 2.

Figure 2: Cumulative number of banks providing e-invoicing services



3.2 Main drivers and barriers for banks' customers

Business-to-business e-invoicing. According to participating banks, the main drivers for corporates to use e-invoicing were cost-cutting and improved working capital management. Nearly all respondents were of the view that cost savings achieved through streamlined and more efficient business processes and the subsequent reduction in labour costs were convincing corporates to migrate to e-invoicing. Working capital management was mentioned as the second most popular reason for corporates to use e-invoices. However, less than half of the banks cited that improved visibility of payables and receivables or integration with financial processes would be the primary reasons for corporates to use e-invoicing. Technology investments and lack of market penetration followed by organisational resistance were mentioned as the primary reasons why corporates would not have replaced paper invoices.

Business-to-consumer e-invoicing. In the B2C market, banks felt that the main reasons for corporates to migrate to e-invoicing were cost-cutting and improved customer relationships. For consumers the main benefits would be convenience as well as savings in both time and money. The

cost of investment in technology and lack of customer demand are, according to the banks, the primary reasons for corporates not to use e-invoicing. Emotional reasons were most often cited by the banks as to why consumers would not like to receive invoices electronically. According to banks, some consumers are generally not in favour of electronic channels and feel that fewer risks are related to invoices received on paper. Low penetration of e-invoicing amongst billers was the second most common reason why consumers would not use e-invoicing. Incidentally, low adoption among consumers was also considered to be one of the main factors why corporates are not offering e-invoices. In summary, consumers are not using these services as corporates are not offering them and vice versa.

| | B2B | B2C |
|--|---|--|
| Drivers <i>“Primary reason for customers to use e-invoicing services”</i> | <ul style="list-style-type: none"> • Cost cutting • Improved working capital management • Improved customer relationship | Corporate: <ul style="list-style-type: none"> • Cost cutting • Improved customer relationship Consumer: <ul style="list-style-type: none"> • Convenience • Savings (time, fees) |
| Barriers <i>“Primary reason for customers not to use e-invoicing services”</i> | <ul style="list-style-type: none"> • Implementation costs • Low market penetration • Organisational resistance | Corporate: <ul style="list-style-type: none"> • Investment required • Lack of customer demand Consumer <ul style="list-style-type: none"> • Emotional reasons • Lack of support from billers |

3.3 Primary incentives for banks

The main incentive for banks to offer B2B e-invoicing services is the potential to integrate with existing services in the cash management and supply chain area. The opportunity to provide integrated financing and payment services was most commonly mentioned. In a few countries, bank provisioned e-invoicing services are already very common, to such an extent that e-invoicing must form part of a banks' generic service suite to be able to respond to customer demands and remain competitive.

Banks view B2C e-invoicing as an opportunity to increase customer loyalty, both amongst corporates as well as consumers. B2C e-invoicing brings benefits especially to mass billers. Few banks reported that B2C e-invoicing services were specifically developed to respond to the demands of this customer segment. As in the B2B area, banks saw potential for generating additional revenue by integrating e-invoicing with existing cash management, supply chain and financing services.

Banks had differing expectations regarding the time it would take for investments in e-invoicing services to start generating positive returns. 9 banks responded that in the B2B area, estimates ranged from 2 to 8 years, with an average of 5 years, In B2C e-invoicing, banks' estimates for reaching positive ROI varied even more. 10 banks responded that the average was 5.4 years with a range from 2 to 12 years. In both cases, those banks that had yet to launch services were more optimistic about ROI.

| | B2B | B2C |
|--|---|---|
| Incentives <i>“Primary reason for banks to offer services”</i> | <ul style="list-style-type: none"> • Financing opportunities • Integration to existing services | <ul style="list-style-type: none"> • Customer demand • Integration to existing services |
| ROI | <ul style="list-style-type: none"> • Within 2-8 years • On average within 5 years | <ul style="list-style-type: none"> • Within 2-12 years • On average within 5,4 years |

3.4 Banks' marketing mix

Banks' competitive advantage. Banks felt that the competitive advantage of their B2B e-invoicing service was the wide set of functionalities offered and the unique way in which e-invoicing is integrated into and supported by existing banking channels and services. Banks also mentioned that reach, i.e. the ability for the corporate to reach a wide number of trading partners, was another competitive element of their offering.

In the B2C area banks felt that the competitive advantage lay in their ability to offer complete solutions for e-invoice issuance and receipt processes. This was complemented by their existing electronic channels and banking services, such as collections, payments and financing.

Addressed customer segments. Feedback provided by banks suggests that there is slightly more emphasis on providing both B2B and B2C e-invoicing services to large corporates and less oriented towards serving public administration. Despite this slight tendency to favour larger corporates, banks are generally targeting all customer segments.

Reach. Corporates are increasingly seeking efficiencies by centralising treasury functions. This leads to fewer banking relationships. In order to respond to corporate requirements banks need to deploy wider geographic reach in their service network. The two primary ways to accomplish this are: a) extending their own service network and b) partnering with other banks.

Both in the business-to-business and business-to-consumer areas, roughly half of the banks who provide or plan to provide e-invoicing services do so in one country. In the B2B area, 10 banks (= 34%) had concrete plans to offer services at the pan-European or global level. In the B2C area 10 banks (= 34%) had concrete plans to offer services in more than one country and none globally.

Figure 3: B2B geographic coverage

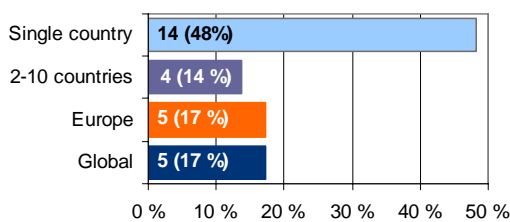
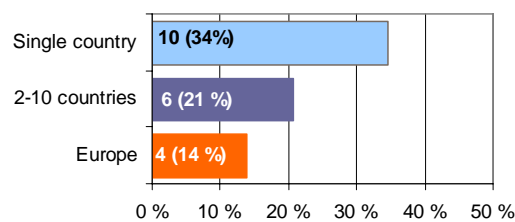


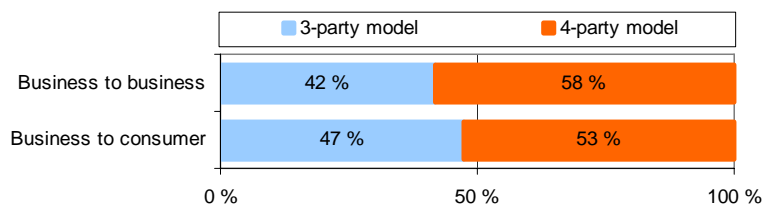
Figure 4: B2C geographic coverage



The B2C graph above seems to suggest that third of the banks plan to provide B2C e-invoicing services in multiple countries. Although being factually correct it is not the complete picture. In the B2B area banks e-invoicing services typically cover multiple countries, whereas on the B2C area, services are country specific.

E-invoicing is a relatively new business area for banks and cooperation models are largely still yet to be defined. Slightly more than half of the banks supported, or intend to support, a 4-corner business model at product launch. The 4-corner model was marginally better supported in the B2B area than in the B2C area.

Figure 5: E-invoice business models



The fact that different banks and regions are at different stages of evolution is likely to be part of the reason why banks don't have concrete plans to deploy e-invoicing services throughout their services network. Also the level of partnering is less developed than in other areas of banking. As a conclusion, from a corporate perspective, the overall reach of a banks e-invoicing service is limited compared to more mature areas of banking.

Offered functionalities. Both in B2B and B2C e-invoicing banks seem to offer a wide set of functionalities in their solutions. An online banking platform is the most commonly offered channel for banks to provide e-invoicing services. File transfer is less utilised, especially in the B2C area.

Figure 6: Business to business channels

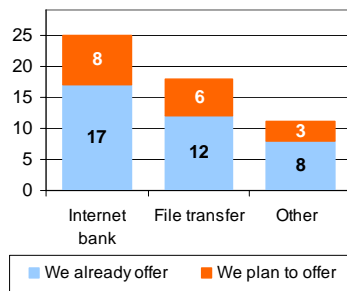
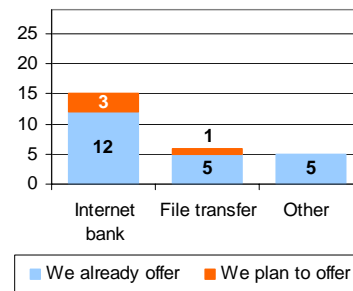
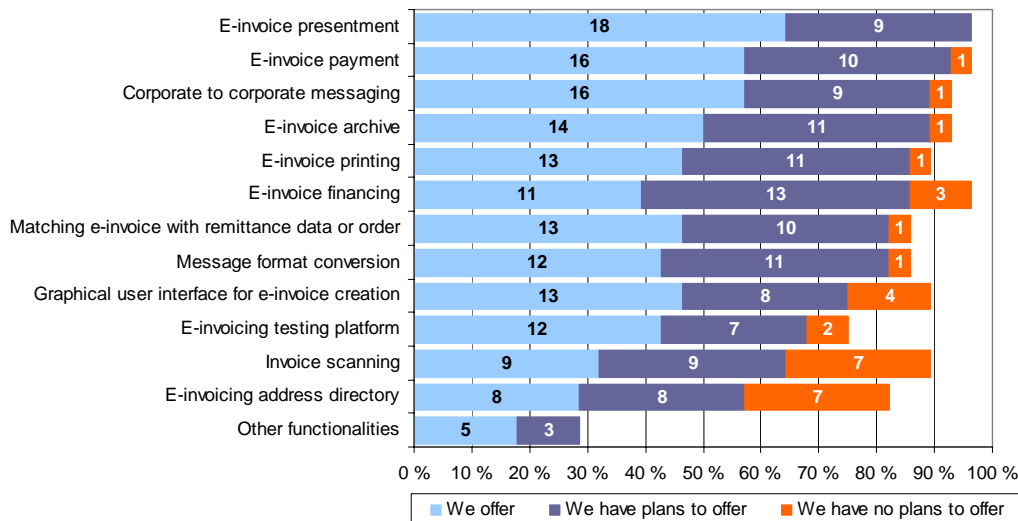


Figure 7: Business to consumer channels



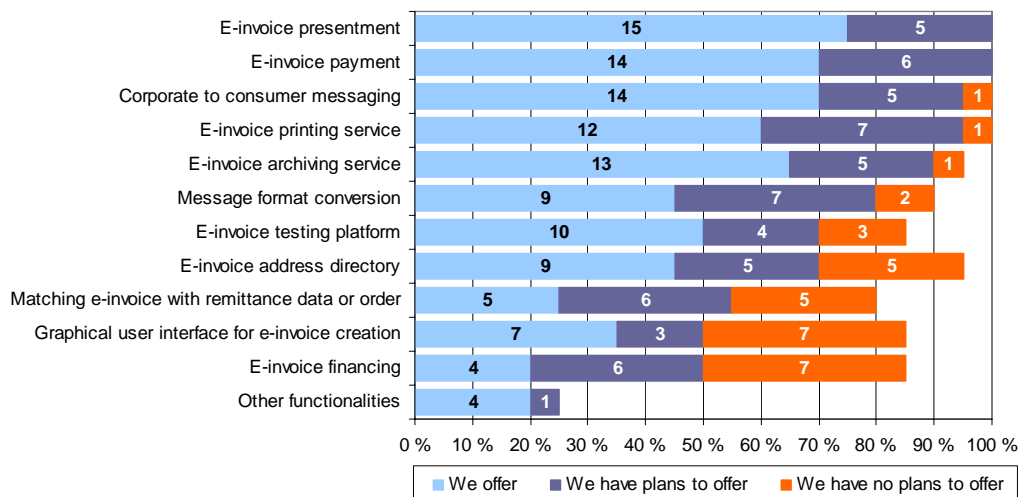
E-invoice presentation and payment, as well as customer-to-customer messaging are the most common functionalities offered by banks. The ability to provide financing on the back of an e-invoice is often considered as one of the main drivers for banks to start offering B2B e-invoicing. Currently 11 banks out of 18 who provide B2B e-invoicing have implemented this capability. The low number of banks to have implemented this capability today is somewhat surprising.

Figure 8: "Which of the following functionalities are offered in your B2B e-invoice service?"



Note: Chart includes only those banks which provide / intend to provide B2B e-invoicing services.

Figure 9: Which of the following functionalities are offered by your B2C e-invoicing service?



Note: Chart includes only those banks which provide / intend to provide B2C e-invoicing services.

Supported formats. The lack of widely accepted standards is frequently mentioned as one of the current barriers for e-invoicing. The absence of a widely supported standard, or standards, was also evidenced in this consultation. Customer-specific, local and regional formats are most commonly used. One third of the banks mentioned that will support EDIFACT standard in their service offering.

In a single bank scenario, the lack of a widely accepted standard is less of an issue for supplier-buyer interoperability. The lack of widely supported standards is relatively straightforward to overcome by offering format conversion services. Many banks offer these services, masking the complexities emerging from the use of differing formats from their end customers.

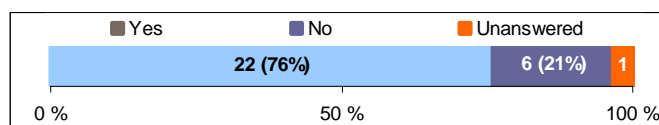
In a multi-bank context, complexities emerge in the interbank space if banks need to agree bilaterally which formats to support. As the number of counterparties grows, complexities increase exponentially. Banks felt that the emergence of an e-invoice standard which is widely supported across the banking industry, would improve the operation of an inter-bank e-invoice exchange network.

3.5 A role for SWIFT

Despite high expectations, both outside and inside the banking industry, e-invoicing has not taken off at the pace expected by many. From a global viewpoint the penetration of e-invoicing is at its highest in North America and in Europe. But even in those regions more than 90% of invoices are still on paper. As shown in this consultation, banks' interest in e-invoicing has increased considerably since 2004. There is some evidence to suggest that in particular SEPA in Europe and the shift from L/C's to open account in global trade have caused banks to consider e-invoicing as part of their cash management or supply chain strategy.

Since the emergence of bank provisioned e-invoicing services in the late 90's, bank collaboration now seems to have reached a level where it is convenient to involve a cooperative such as SWIFT. SWIFT's potential involvement was welcomed by 22 of the consulted banks (= 76% of respondents).

Figure 10: Do you think SWIFT should take actions to support your bank's e-invoicing business?



SWIFT's core strength in providing interoperability of communication continues to be valued. Banks felt that SWIFT should support their e-invoicing business by providing an inter-bank e-invoicing exchange network and that SWIFT should support the emergence of a banking industry-wide e-invoice standard.

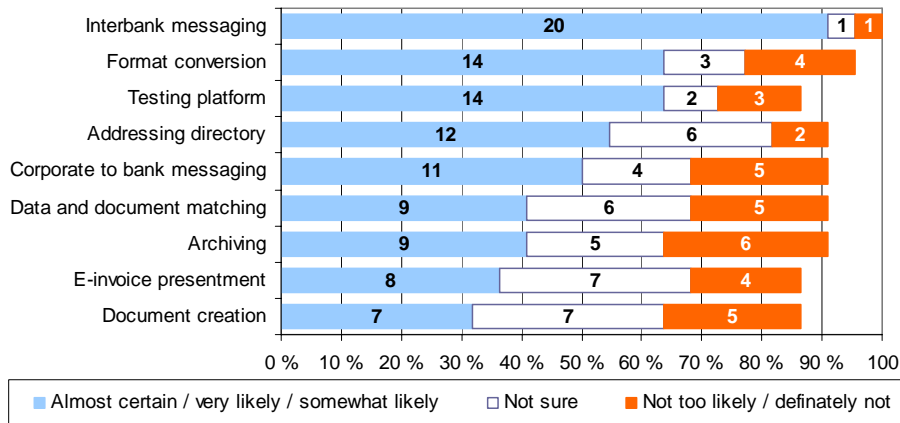
Few potential elements of a future SWIFT e-invoicing service were presented to the banks during the consultation. Many of these functionalities already exist in some form on the SWIFTNet platform.

- FileAct header request type tsmt.xxx.tradedocuments was made available in May 2008 to be used in Interbank as well as corporate-to-bank messaging for e-invoices.
- The Simulation Testing and Qualification Service (STaQS) is a shared platform for testing compliance of message standards against published specifications, market practice rules, and regulatory requirements.
- SWIFT maintains several payments related reference data directories for the purposes of improving straight-through processing
- SWIFT's Trade Services Utility (TSU) is a centralised matching and workflow engine providing timely and accurate comparison of data taken from underlying corporate purchase agreements and related documents. The TSU supports banks' value added supply chain services such as finance programmes, cash forecasting and liquidity management.

- SWIFT's central confirmation matching service Accord is complemented by an optional 10 year archive and search engine that keeps the full matching history of treasury confirmations sent/received along with a complete operator actions audit trail.

The most popular functionality of a potential future SWIFT e-invoice service is interbank messaging with online message validation. This was followed by message format conversion and a testing platform to ensure format compliance. Less supported were e-invoice presentment and document creation functionalities which may require real-time integration with banks online banking platform.

Figure 11: "How likely is it that you would buy the following services from SWIFT assuming that our pricing matched that of competitors?"



Note: Chart includes only those banks which welcomed SWIFT's support.

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