

# Electronic Payments & Remittance Data: Pain Points & Solutions

Summary of Results from the 2012  
Survey of Business Practitioners  
by the Remittance Coalition

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Prepared by the Federal Reserve Banks of Minneapolis & Chicago

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# I. Executive Summary

Many U.S. businesses continue to use a disproportionate number of checks to make and receive business-to-business (B2B) transactions and rely on manual, paper intensive processes to reconcile associated remittance data. The results of a survey conducted by the Remittance Coalition<sup>1</sup> (RC) show that this is a consequence of persistent barriers that impede adoption of more e-payments and e-remittance data. Indeed, most businesses recognize the benefits of e-payments and e-remittance data and express strong interest in increasing their use of these alternatives to paper methods.

So what are the major barriers to adopting more e-payments and e-remittance data? These fall into three broad categories:

- 1. Trading Partners.** Many businesses report that their trading partners, particularly smaller businesses, are unable or unwilling to originate and receive e-payments and e-remittance data.
- 2. Information Technology.** Many businesses lack effective technology and sufficient IT resources needed to support more use of e-payments and e-remittance data.
- 3. More Standard Practices.** Finally, many businesses cite the problem of non-standard e-remittance formats and business practices, which makes it difficult to readily exchange and automate e-remittance processing. For example trading partners reportedly use the X12 EDI 820 standard in such different ways that specific arrangements must be negotiated with each trading partner to enable processing of remittance data files. Businesses also report that remittance data frequently has key fields missing or incorrect data, making manual intervention necessary.

Fortunately, businesses identify a number of solutions that they believe can be effective to reduce these barriers, thus improving the efficiency of processing B2B transactions from end-to-end. Top-ranked among these solutions is to develop and promote the use of more common business practices when populating and exchanging remittance data. An example of this is an RC initiative to define a subset of deduction codes (about 70) drawn from the full X12 426 Adjustment Reason Code standard, which contains over 600 codes.

A second solution that businesses identify as important is more education on e-payments and automated remittance data processing that is targeted to customers, employees, and suppliers. Of particular interest is practical, how-to education programs covering topics such as *“tools to work better with customers so that they will pay electronically,” “best practices for reconciling ACH payments and remittance information,”* and *“choosing the right e-payment.”*

Finally, businesses see the need for more effective technology services as critical or important to reducing barriers to more e-payments and remittance data adoption. These

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<sup>1</sup> The Remittance Coalition (RC) has about 200 members from financial institutions, payment-related associations, consultants, payment service providers and vendors, standards developers, governmental entities, and business practitioners. For more information about the RC, see Appendix A.

services are especially important to enable automated reconciliation of payments with remittance data.

In conclusion, the RC survey results show clearly that businesses want to adopt more e-payments and improve the efficiency of reconciling them with remittance data. There is no single “silver bullet” that will meet all needs, but businesses are seeking help to develop and promote practical solutions that they believe will move their business forward to achieve greater efficiency in B2B payment processing.

## **II. Introduction**

In 2011, the Remittance Coalition (RC) was formed by a group of businesses interested in promoting greater use of electronic payments and remittance data in order to increase the efficiency with which business-to-business (B2B) payments are made, received and reconciled. To help guide its priorities and work efforts, the RC conducted a survey of business practitioners to better understand the main barriers they face that limits their increased use of e-payments and e-remittance data. Further, the survey asked respondents to rate the effectiveness of five different possible solutions to the problem to better understand corporate practitioner views on ways to improve the processing of electronic payment and remittance data.

This report describes the methodology used to conduct the survey, presents detailed findings of the survey, and discusses implications for action by the RC and other businesses committed to increasing the efficiency of B2B transaction processing.

## **III. Methodology**

An RC Survey Team (the “Team”) oversaw the design, development, and implementation of the survey (survey questions are shown in Appendix C) and helped assess the results. Members of the Team included representatives from the Federal Reserve Banks (FRB) of Chicago and Minneapolis, Aite, Association for Financial Professionals (AFP), Association of Small Business Development Centers (ASBDC), Bramicmarsol, Citigroup, Credit Research Foundation (CRF), GS1, Institute of Financial Operations (IFO), Interactive Financial xChange (IFX), Johnson Controls, Mineral Tree, NACHA, National Association of Purchasing Card Professionals (NAPCP), SWIFT, The Clearinghouse (TCH), and Yokum Advisors.

Staff from the FRB Chicago’s Customer Relations and Support Office (CRSO) programmed and administered the survey, which used a web interface. The survey was distributed between June 5 and July 20, 2012, by five business associations on the Team – i.e., AFP, ASBDC, CRF, IFO, and NAPCP. An email linked to a URL address was the main distribution method used, which generated 662 responses. Also, Mineral Tree conducted telephone interviews with 29 small businesses between June 5 and July 5 using a subset of the survey questions. The purpose of this adjunct effort was to increase the representation of small businesses in the research results. The Mineral Tree data is compared separately in Section VI, Comparison of Findings to Smallest Businesses.

### ***A. Caveats***

The survey methodology was developed to be as free of bias as possible. As noted, the survey leveraged membership and mailing lists of AFP, ASBDC, CRF, IFO, and NAPCP, so recruiting respondents was not random and survey participation was voluntary.

The survey was pre-tested with a few members from each participating association to ensure the questions were clear and answerable. Where feedback indicated otherwise,

questions were revised. Following the conclusion of the survey, two focus groups were conducted with practitioners to determine if non-responders (one group) held different views generally from survey responders (a second group). This comparison showed the views of the two groups were similar.

Responses to the survey are skewed somewhat to manufacturing and large businesses (defined as \$500 million or more in annual revenues). To address the former, segment analysis was conducted, which showed that manufacturing alone as a respondent attribute did not bias the results. Regarding the latter, noteworthy responses due to differences in business size are described in the document, where relevant.

In some cases, the sum of percentages may not total 100 percent. This is due to the effect of rounding.

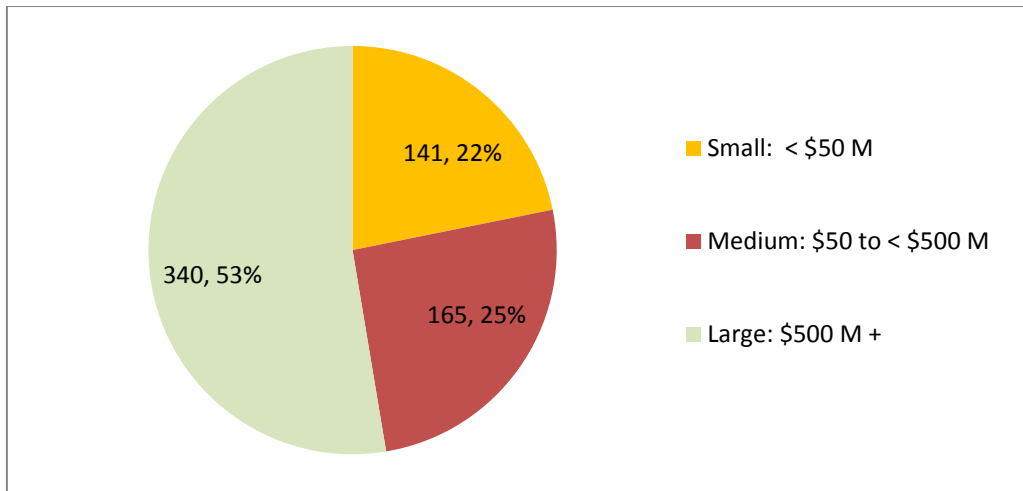
## IV. Respondent Profile

### *A. Business and Respondent Profile*

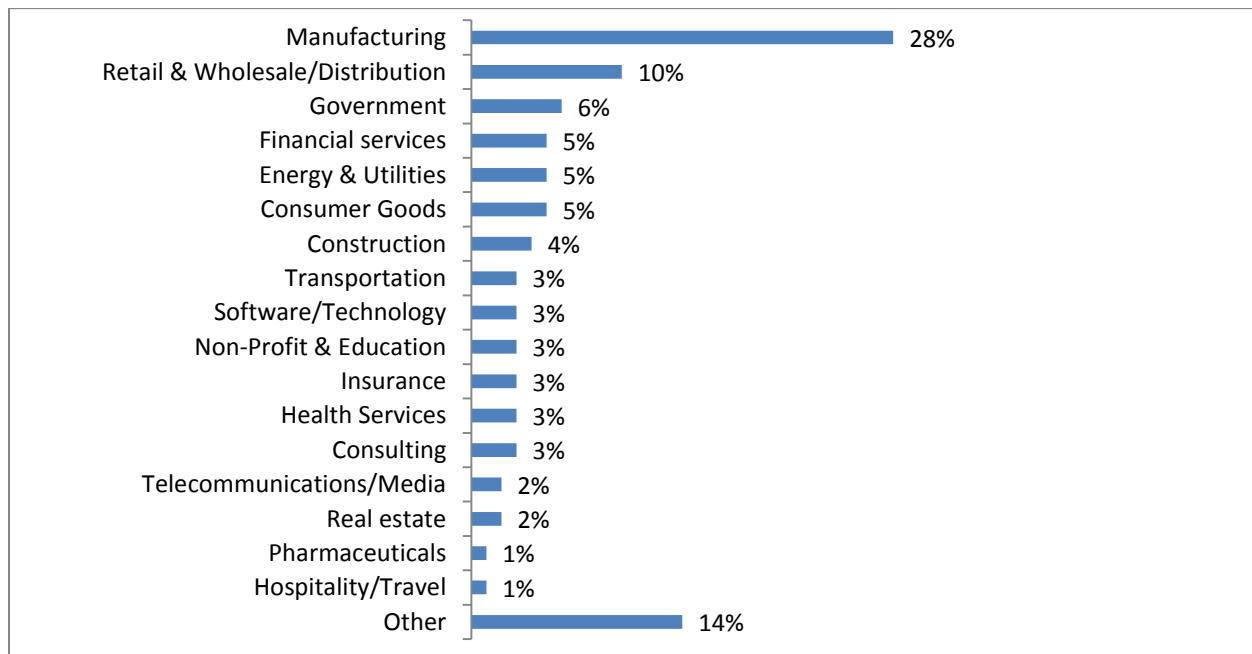
Respondents were asked to profile their business in terms of annual revenues and industry segment and identify their primary responsibilities in their businesses. This information is summarized in Tables 1 – 3.

- **Business Size, Table 1.** Based on annual revenues, over half (53 percent) the businesses responding are large (\$500 million or more in annual revenues), 26 percent are medium (\$50 million or more but less than \$500 million in annual revenues), and 22 percent are small (defined as less than \$50 million in annual revenues).
- **Industry Segment, Table 2.** Survey respondents represent a cross-section of industries, with the largest number of respondents from manufacturing, followed by retail. This distribution is somewhat skewed to manufacturing as compared to the U.S. industry mix reported by the Department of Commerce – i.e., manufacturing is 19 percent nationally (see Appendix B Table A2 for a side by side comparison).
- **Primary Responsibilities, Table 3.** Respondents were asked to identify their main responsibilities at their businesses, which in some cases include multiple functions (evidenced by Table 3 percentages totaling more than 100 percent). Accounts receivable (A/R) is the most common responsibility, with half (50 percent) of respondents, followed by Treasury responsibilities at 39 percent.

**Table 1: Number & % of Respondents by Business Size**  
(n=646)

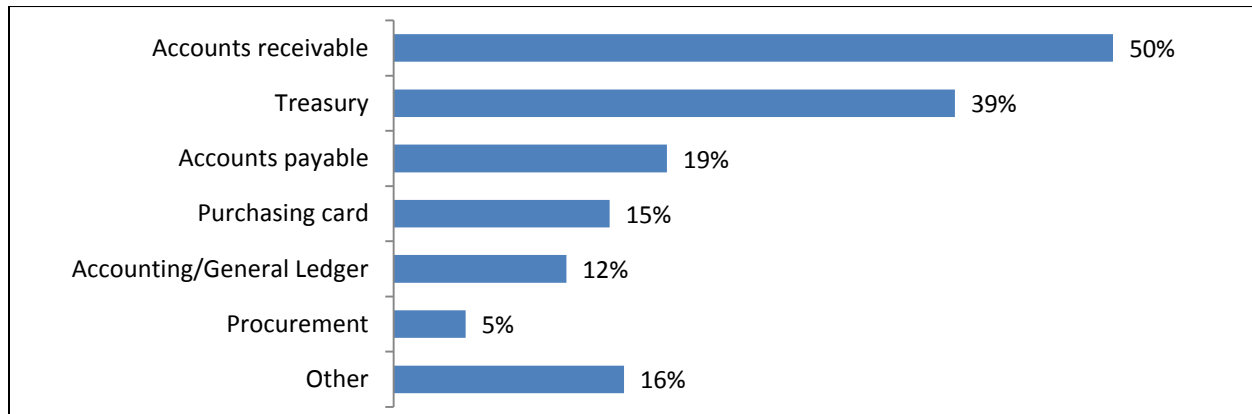


**Table 2: % of Respondents by Industry Segment**  
(n= 659)





**Table 3: % of Respondents by Primary Responsibilities**  
(n=660)

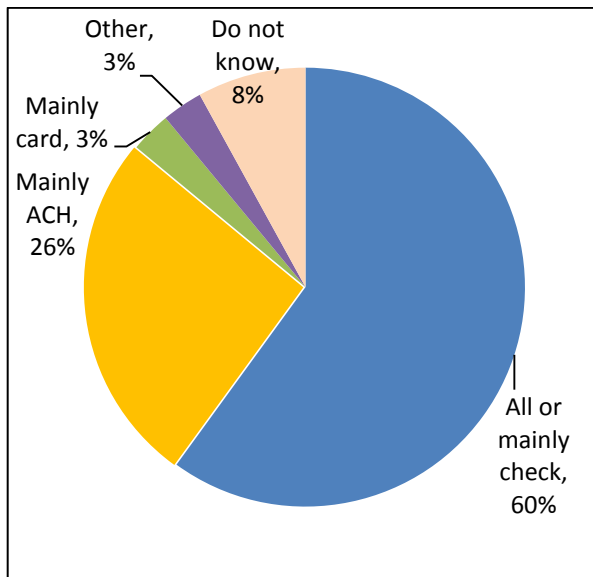


## **B. Payments and Remittance Profile**

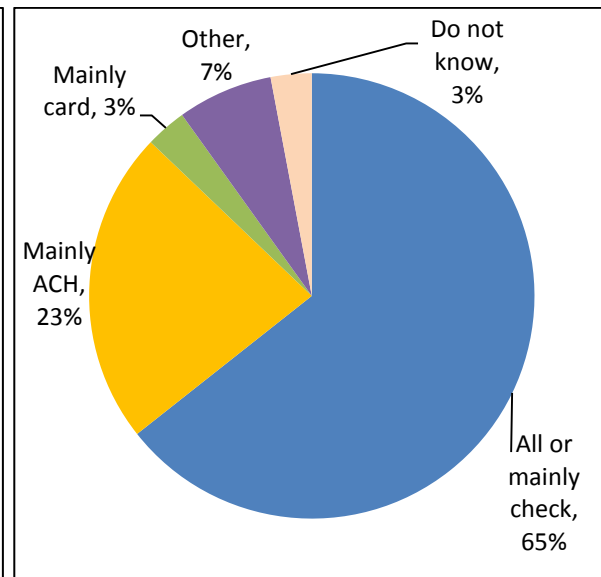
Respondents profiled their business' current payment mix – both payments made and payments received. Tables 4A and 4B show that well over half of respondents make and receive B2B payments all or mainly as checks – 60 percent and 65 percent respectively. Nearly one-quarter make and receive B2B payments mainly by Automated Clearing House (ACH) while only three percent make and receive B2B payments mainly by card.

**Table 4: Primary Payment Methods**

**Table 4A: Primary Method for Making Payments**  
(n=654)

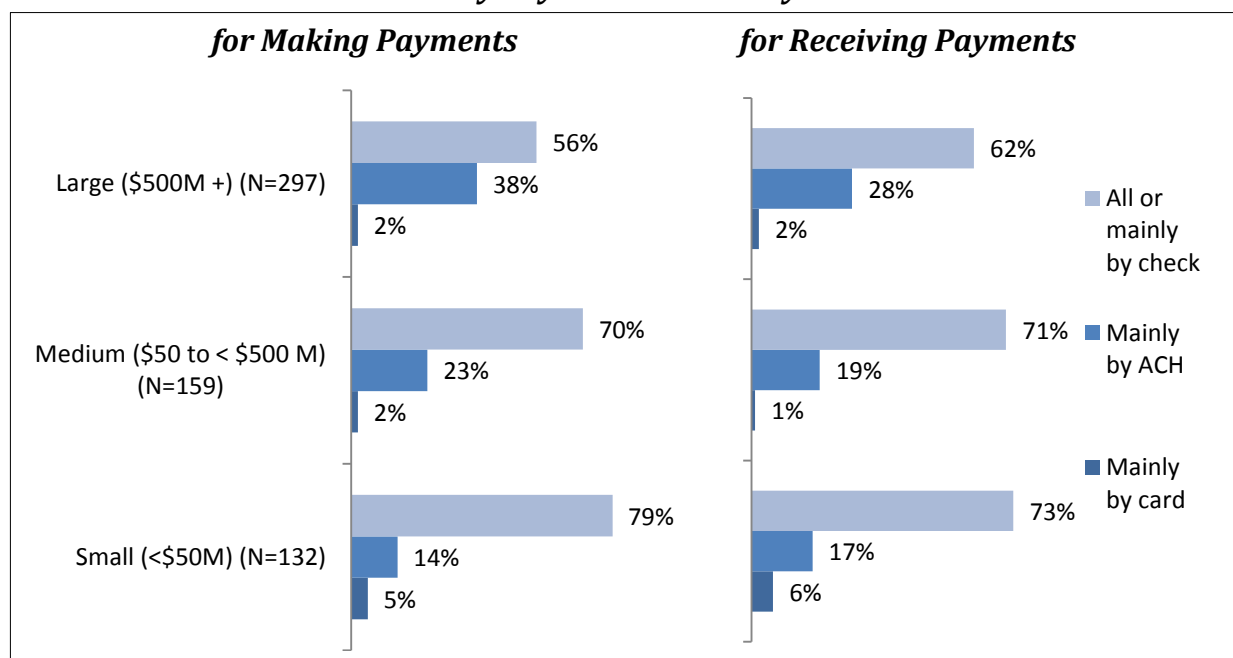


**Table 4B: Primary Method for Receiving Payments**  
(n=656)



The percentage of ACH payments made and received increases with business size, while the percentage of check payments made and received decreases with business size, as shown in Table 5.

**Table 5: Primary Payment Methods by Business Size**



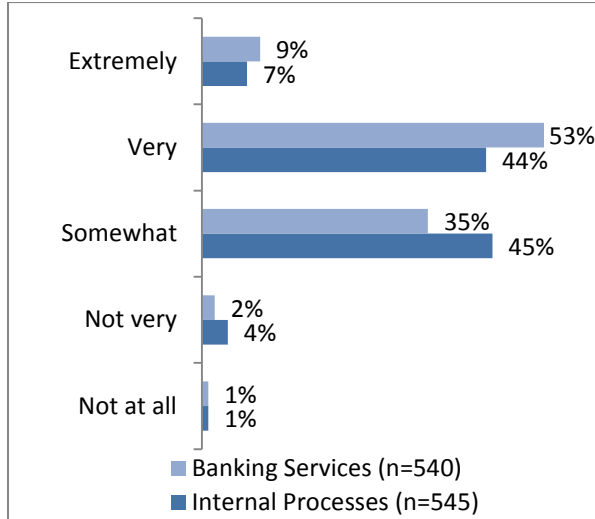
## V. Summary of Results

### A. Effectiveness of Internal Processes and Banking Services for Making and Receiving Payments

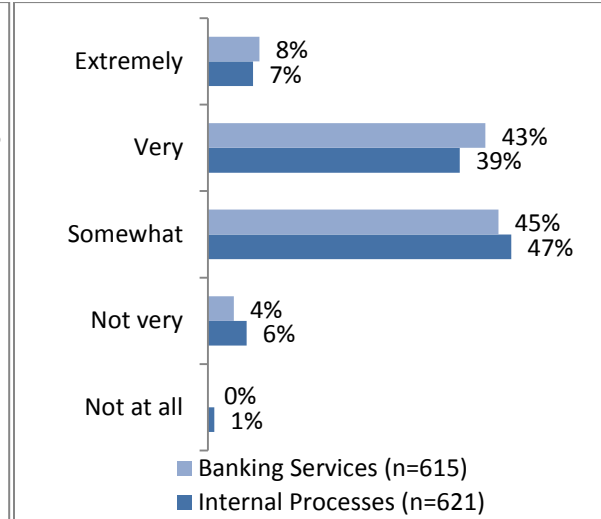
Overall, respondents are fairly satisfied with the effectiveness of their current internal processes and banking services to meet their accounts payable (A/P) and receivable (A/R) needs as reported in Tables 6A and 6B. About half (51 percent) respondents describe their internal processes as extremely or very effective in meeting their A/P needs (i.e., for making payments) while six in ten (61 percent) describe their banking services as extremely or very effective in meeting their A/P needs. Respondents were slightly less satisfied with their internal processes and banking services meeting their A/R needs (i.e., for receiving payments). Less than half (46 percent) view their internal processes as extremely or very effective in meeting their A/R needs while about half (51 percent) view their banking services as extremely or very effective in meeting their A/R needs.

**Table 6: Effectiveness Meeting A/P & A/R Needs**

**Table 6A: Effectiveness of Internal Processes & Banking Services to Meet A/P Needs (i.e., making payments)**



**Table 6B: Effectiveness of Internal Processes & Banking Services to Meet A/R Needs (i.e., receiving payments)**



Respondent views on the effectiveness of internal processes and banking services vary somewhat by primary payment method, as shown in Table 7. Businesses that pay mainly by cards view their internal processes more effective in meeting their needs for making payments (A/P needs) than businesses that pay by other methods. Businesses that receive payments mainly by check view their internal processes and banking services as less effective in meeting their needs for receiving payments (A/R needs) than businesses that mainly receive payments by ACH or card. Businesses that make payments mainly by card view their internal processes for meeting A/P needs more effective than do businesses that make payments mainly by check or ACH.

**Table 7: Business Ratings of Extremely or Very Effective in Meeting A/P & A/R Needs by Payment Method**

|  | <i>All or<br/>mainly by<br/>check</i> | <i>Mainly by<br/>ACH</i> | <i>Mainly by<br/>card</i> |
|--|---------------------------------------|--------------------------|---------------------------|
| <i>Percent ranking <u>Internal Processes</u> “extremely” or “very effective” in meeting A/P needs (i.e., making payments)</i>    | 51%                                   | 48%                      | 71%                       |
| <i>Percent Ranking <u>Banking Services</u> “extremely” or “very effective” in meeting A/P needs (i.e., making payments)</i>      | 61%                                   | 65%                      | 62%                       |
| <i>Percent ranking <u>Internal Processes</u> “extremely” or “very effective” in meeting A/R Needs (i.e., receiving payments)</i> | 42%                                   | 54%                      | 50%                       |
| <i>Percent ranking <u>Banking Services</u> “extremely” or “very effective” in meeting A/R Needs (i.e., receiving payments)</i>   | 47%                                   | 58%                      | 53%                       |

## ***B. Current Methods for Receiving Remittance Data***

Table 8 shows that 77 percent of respondents receive remittance data directly and separately from a payment transaction from some of their trading partners. Other studies have reported that the amount of remittance data received separately from the payment transaction is substantial and may constitute the majority of remittances received.<sup>2</sup>

**Table 8: % of Respondents Who Receive Remittance Data Directly & Separately from the Payment for Some Trading Partners**  
(n=636)

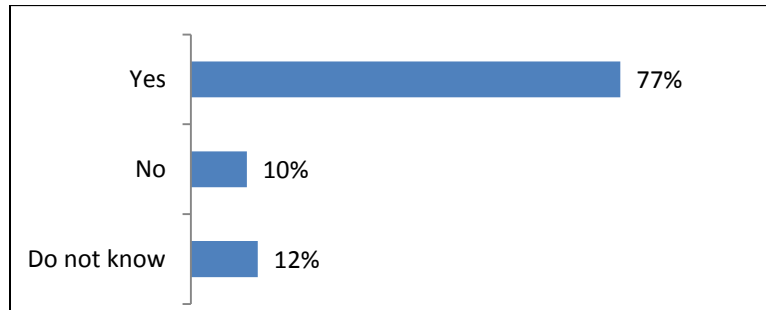
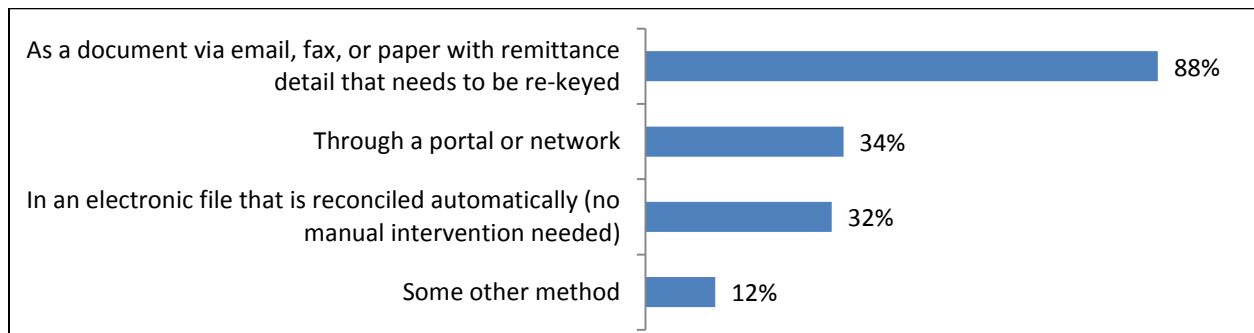


Table 9 shows the methods by which respondents receive remittance data that is sent directly to them by a trading partner. Respondents were allowed to indicate all methods in which they received remittance data from a trading partner, so percentages do not total 100 percent. Almost nine out of ten (88 percent) receive some remittance data in a document sent via email, fax, or paper, one-third receive some remittance data via a portal, and one-third receive some remittance data in an electronic file that is automatically reconciled. Certain industries report above average rates of remittance information received by e-mail: manufacturing (92 percent), retail (92 percent) and transportation/energy (93 percent).

**Table 9: How Respondents Receive Remittance Data Sent Directly by Trading Partners**  
(n=481)



<sup>2</sup> NACHA/Aite 2012 Benchmark Survey & Analysis of Remittance Practices reported 10% of remittance data is sent with a payment in a payment standard format.

As Table 10 shows, when remittance data is carried in an e-payment, about one-quarter (26 percent) of respondents receive it in an EDI format that can be automatically reconciled. Two-thirds report that they must rekey data that they receive (one-third that receive data via e-mail, fax or paper, and one-third in an ACH format that must be input manually). Sixteen percent of respondents report that their bank or payment provider does not provide any remittance data to them carried in an e-payment.

**Table 10: *Format Provided by Bank or Payment Processor when Remittance Data Is Carried in an E-Payment Received***  
(n=601)

|   |     |
|---|-----|
| An electronic file in an ACH format that we input manually        | 34% |
| A document via email, fax, or paper that is rekeyed               | 33% |
| An EDI data file in a format that can be reconciled automatically | 26% |
| We do not receive any remittance information                      | 16% |
| Information in a BAI2 (or BTRS) file                              | 15% |
| Do not know   | 13% |
| Some other method   | 8%  |

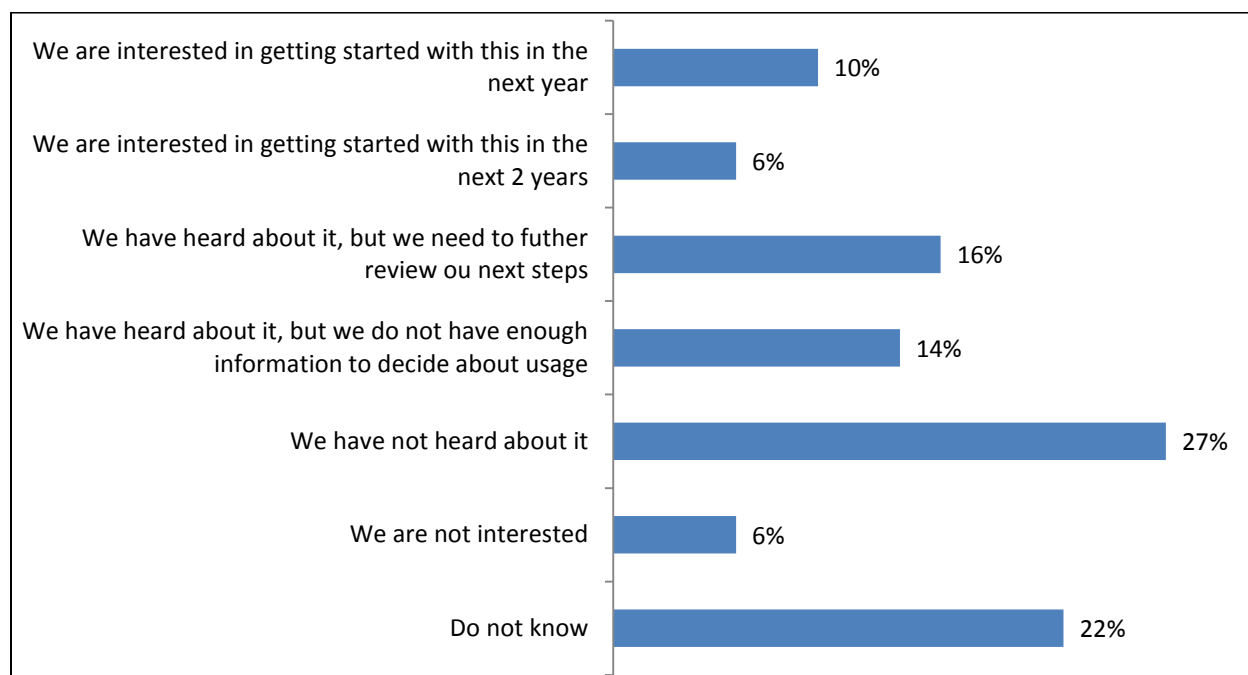
### **1. *Extended Remittance Information in Wire Payments***

In November 2011, the Fedwire and CHIPS wire transfer systems implemented a new capability to allow businesses or their banks to include up to 9,000 characters of remittance data in a wire transfer payment<sup>3</sup>. Survey respondents were asked about their familiarity with this new capability and their expected use of it.

Less than half of respondents are familiar with the extended remittance data capability in wire payments, as shown in Table 11. However, larger businesses and those in the Treasury function are somewhat more familiar with the new format than smaller businesses and representatives of other functional areas. (Reference Appendix B, Tables B3 and B4.) Sixteen percent of respondents say they are interested in using the wire remittance capability in one or two years. Another 30 percent of respondents say they need more investigation or information before considering use of this capability.

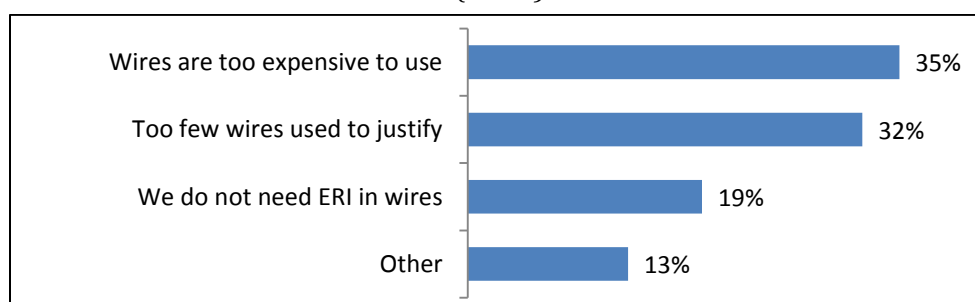
<sup>3</sup> More information about extended remittance information in wire transfer payments can be found on the FRB Services website, [www.frb-services.org/campaigns/remittance](http://www.frb-services.org/campaigns/remittance)

**Table 11: Respondent Views on Extended Remittance Capability for Wires**  
(n=590)



Among the six percent of respondents who are not interested in using the wire remittance capability, approximately one-third (32 percent) say they do not use enough wire payments to justify the changes and another third (35 percent) avoid using wire payments due to their relatively high cost (Table 12).

**Table 12: Reasons for Lack of Interest in Wire Extended Remittance**  
(n=31)

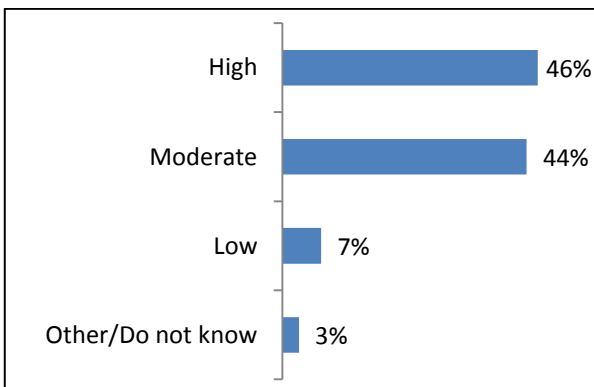


### ***C. Interest in Increasing Electronic Payments and Remittance***

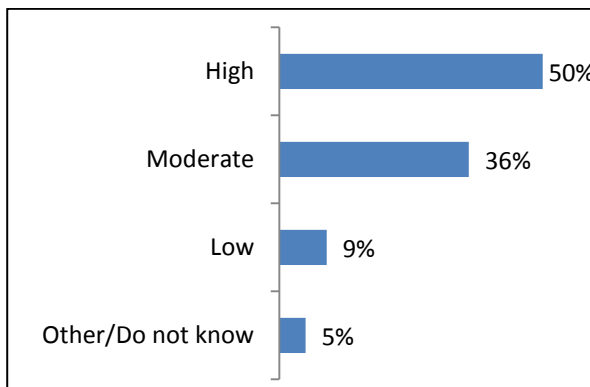
The vast majority of respondents express moderate or high interest in increasing their use of e-payments and the automated exchange of remittance data—90 percent and 86 percent

respectively as shown in Tables 13 and 14. This suggests a large gap between these businesses' desired state to become mainly electronic and automated compared to their current profile of payments and remittance data use, which remains mainly paper-based and manual.

**Table 13: Interest in Making & Receiving More E-Payments**  
(n=635)



**Table 14: Interest in Automating Exchange & Reconciliation of More E-Remittance Data**  
(n=646)

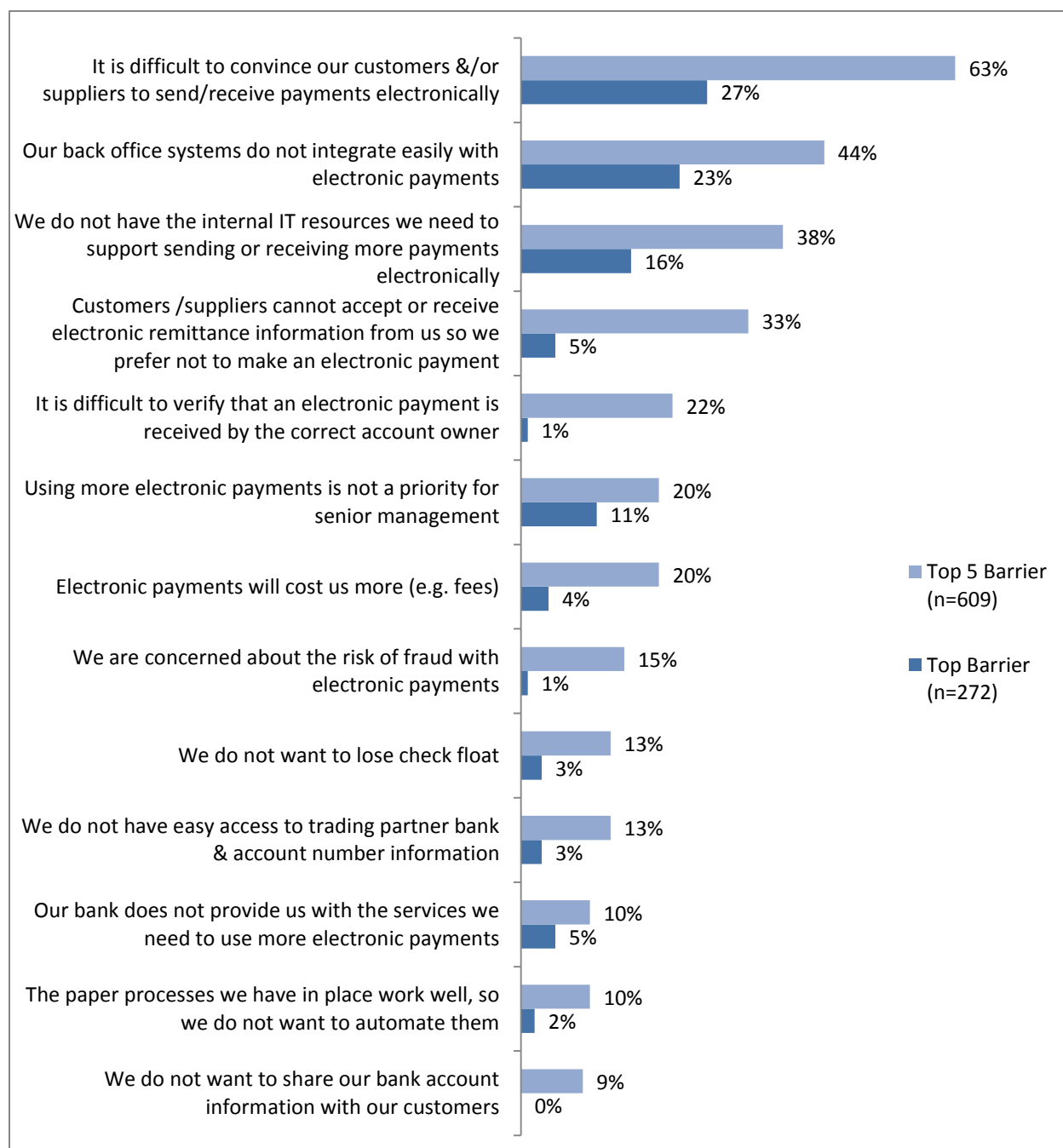


#### ***D. Barriers to More Use of Electronic Payments***

Collectively, respondents identify “*difficulty in convincing their customers or suppliers to send or receive payments electronically*” as the top barrier to increasing their use of electronic payments.<sup>4</sup> This is ranked as the number one major barrier by 27 percent of respondents and among the top five by 63 percent of respondents. The fourth highest ranked barrier relates closely to this one—i.e., “*customers/suppliers can’t accept or receive electronic remittance information from us, so we prefer not to make an electronic payment.*” Table 15 below lists the barriers cited as among a respondent’s top five barriers and their number one barrier.

<sup>4</sup> Respondents were asked to select the top five barriers to their increased use of e-payments, and then asked to select the most critical barrier and why they selected their most critical barrier.

**Table 15: Main Barriers to More Use of E-Payments**



Technology issues also rank high among the top five barriers identified, including “*our back office systems do not integrate easily with electronic payments*” and “*we do not have internal IT resources we need to support sending or receiving more payments electronically.*” Another key barrier is the lack of a compelling business case for change—e.g., “*using more e-payments is not a priority for senior management.*” Also, tools that are needed to make more e-payments are lacking—e.g., “*it is difficult to verify that an electronic payment is received by*



*the right account owner.*” Finally, for some, the benefits of e-payments are viewed as less appealing than checks—e.g., loss of float, e-payments cost more, and e-payments have higher fraud risk.

Interestingly, the top barriers do not vary much when compared by business size (Table 16). Large, medium, and small businesses agree on the top three barriers: *“inability to convince customers or suppliers to send or receive electronic payments,” “lack of integration of back office systems,”* and *“lack of internal IT resources.”* The only notable difference is that a larger percentage of medium and large businesses cite the inability to convince customers or suppliers as a major problem (68 percent and 66 percent respectively) compared to small businesses (48 percent), though all three sizes of businesses rank this as the top barrier.

**Table 16: Main Barriers to More Use of E-Payments by Business Size**

| <i>Small</i><br>( <i>&lt; \$50 M</i> )  | <i>Medium</i><br>( <i>\$50 M to &lt; \$500 M</i> )   | <i>Large</i><br>( <i>\$500 M +</i> )  |
|---|--|---|
| Difficult to convince our customers to send/receive payments electronically (48%) | Difficult to convince our customers to send/receive payments electronically (68%)                        | Difficult to convince our customers to send/receive payments electronically (66%) |
| Back office systems do not integrate (44%)  | Back office systems do not integrate (49%)   | Back office systems do not integrate (41%)  |
| Lack of internal IT resources (37%)   | Lack of internal IT resources & (tied) Customers / suppliers cannot accept or receive e-remittance (35%) | Lack of internal IT resources (39%)   |

The rankings of top barriers vary somewhat when compared by functional area of responsibility. While all areas rank the *“lack of back office system integration”* and *“lack of internal IT resources”* as main barriers, only A/P professionals identify the *“inability of customers/suppliers to accept e-remittance”* as a main barrier. All other functional areas cite *“difficulty in convincing customers”* as a main barrier (Table 17).

**Table 17: Main Barriers to More Use of E-Payments by Function**

| <b>A/P</b>   | <b>A/R</b>                                 | <b>Purchasing Card</b>                     | <b>Treasury / Cash Management</b>          | <b>Procurement</b>                         | <b>Accounting / General Ledger</b>         |
|--|--|--|--|--|--|
| Back office systems do not integrate (37%)             | Difficult to convince our customers (68%)  | Difficult to convince our customers (61%)  | Difficult to convince our customers (65%)  | Difficult to convince our customers (61%)  | Difficult to convince our customers (56%)  |
| Lack of internal IT resources (37%)                    | Back office systems do not integrate (42%) | Back office systems do not integrate (44%) | Back office systems do not integrate (48%) | Lack of internal IT resources (43%)        | Back office systems do not integrate (44%) |
| Customers / suppliers cannot accept e-remittance (34%) | Lack of internal IT resources (38%)        | Lack of internal IT resources (39%)        | Lack of internal IT resources (41%)        | Back office systems do not integrate (36%) | Lack of internal IT resources (37%)        |

Some differences in top barriers also emerge when compared by main type of payment made or received, as shown in Table 18. When cards are the primary method for making payments, one of the top three barriers is *“the inability of customers or suppliers to accept/receive e-remittance data.”* This is not among the top three of respondents that make payments mainly using other methods. When ACH is the main type of payment received, one of the top three barriers is *“the inability of customers/suppliers to accept/receive e-remittance data.”* Respondents that mainly receive payments by cards or checks do not have this same barrier among the top three. Finally, when card is the main payment method received, *“electronic payments will cost more”* is a main barrier to increased adoption. This is not among the top three barriers by respondents that primarily receive payments via ACH or check.

**Table 18: Main Barriers to More Use of E-Payments by Main Payment Method**

|                                       | <b><i>All or mainly by check</i></b>       | <b><i>Mainly by ACH</i></b>   | <b><i>Mainly by card</i></b>  |
|---------------------------------------|--|---|---|
| <b><i>Payment method made</i></b>     | Difficult to convince our customers (53%)  | Difficult to convince our customers (72%)                           | Difficult to convince our customers (61%)                           |
|                                       | Back office systems do not integrate (51%) | Back office systems do not integrate (37%)                          | Customer / supplier cannot accept / receive e-remittance info (44%) |
|                                       | Lack of internal IT resources (45%)        | Lack of internal IT resources (29%)                                 | Lack of internal IT resources (39%)                                 |
| <b><i>Payment method received</i></b> | Difficult to convince our customers (62%)  | Difficult to convince our customers (65%)                           | Difficult to convince our customers (71%)                           |
|                                       | Back office systems do not integrate (46%) | Customer / supplier cannot accept / receive e-remittance info (42%) | Electronic payments will cost more (43%)                            |
|                                       | Lack of internal IT resources (45%)        | Back office systems do not integrate (38%)                          | Lack of internal IT resources (43%)                                 |

Over 280 comments were provided to explain the respondent's selection of the most critical barrier to increased use of e-payments. The number of comments and the frustrations expressed highlights the magnitude and complexity of the problem. A sampling of comments follows:

*"We prefer to make electronic payments (primarily ACH) but vendors, even some fairly large vendors, refuse to accept payment that way. It is the largest barrier to greater implementation that we face."*

*"Convincing customers to send (e-payments) [is the main barrier] because they do not want the expense or it is a special handling situation for them whereas checks are a standard process."*

*"Remittance advices attached to paper checks are keyed by our bank and uploaded via electronic transmission into our ERP system. We do not have this automated process on ACH payments where the majority of the remittance information is supplied via fax or e-mail."*

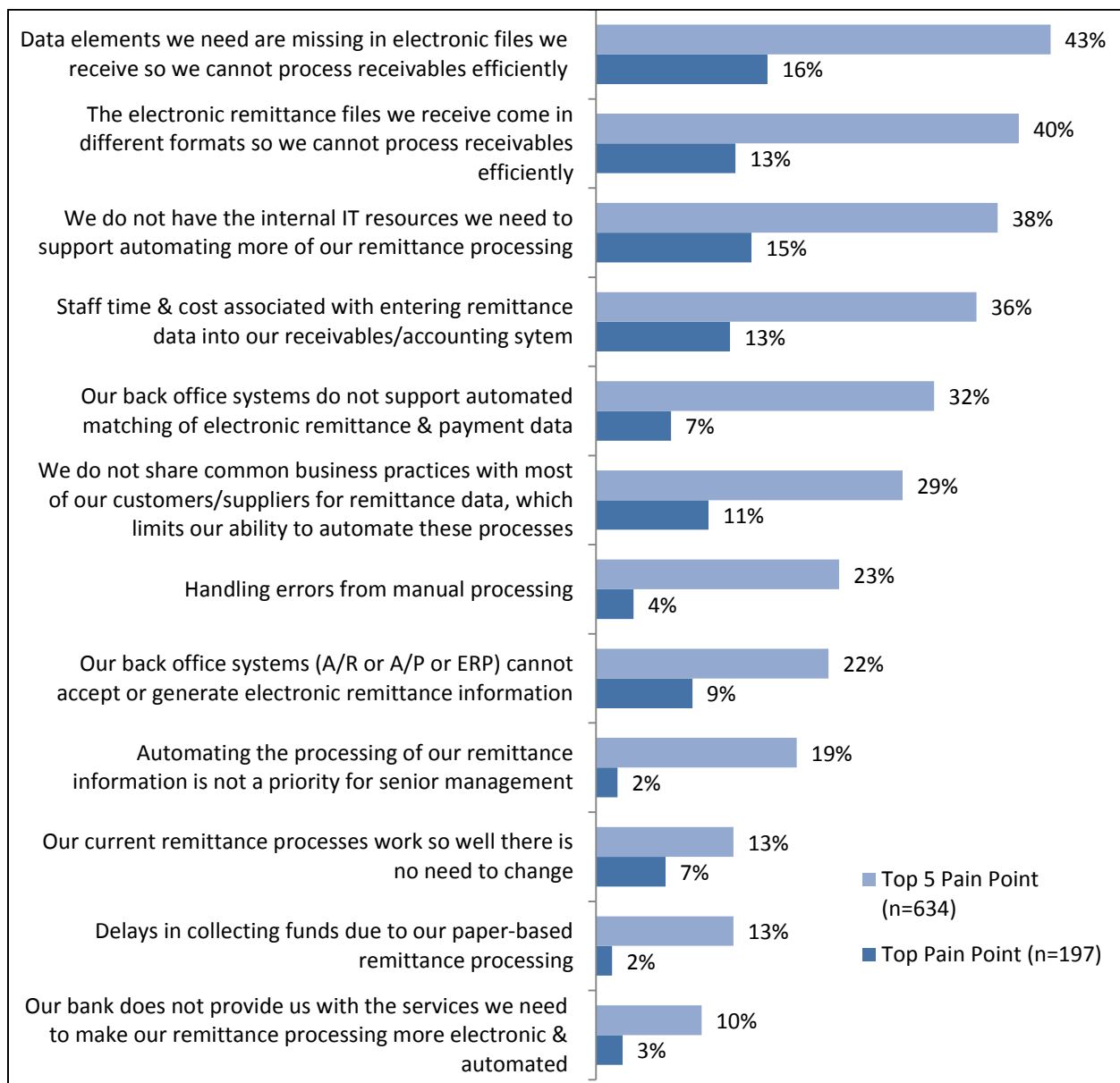
*"IT resources [is the main barrier]. The amount and different types of electronic transactions that have to be identified and accounted for can really make it hard for change or updating systems with better technology or processes."*

*"Matching various formats of electronic remittance advice with electronic payments make processing electronic payments more manual, and the paper process more efficient."*

## E. Remittance Processing Pain Points

Survey respondents identified their top five pain points associated with processing remittance data, presented in Table 19. The top two pain points relate to file data and format issues: “data elements we need are missing in electronic files we receive, so we cannot process receivables efficiently” (43 percent), followed by “the electronic remittance files we receive come in different formats so we cannot process receivables efficiently” (40 percent). The next three highest ranked pain points concern internal support issues. These are: “insufficient internal IT resources to support automating more remittance processing” (38 percent), “staff time and costs associated with entering remittance data” (36 percent), and “back office systems do not support automated matching of e-payments and remittance data” (32 percent).

**Table 19: Top Pain Points of Remittance Processing**



The top three pain points vary somewhat when compared by size of business as shown in Table 20. Only small businesses have “*lack of internal technology resources*” among their top three pain points. Large and medium-size businesses have as a top three pain point “*receiving files in different formats*” and “*staff/time costs*,” while small business do not. All business sizes have as a top three pain point “*data elements missing*.”

**Table 20: Top Three Pain Points of Remittance Processing by Business Size**

| <b>Small</b><br>( <i>&lt; \$50 M</i> )                      | <b>Medium</b><br>( <i>\$50 M to &lt; \$500 M</i> )                            | <b>Large</b><br>( <i>\$500 M +</i> )  |
|---|---|---------------------------------------|
| Lack of internal IT resources (41%)                         | Data elements missing (41%)   | Data elements missing (48%)           |
| Back office systems do not support automated matching (39%) | Files come in different formats (38%)   | Files come in different formats (45%) |
| Data elements missing (34%)                                 | Back office systems do not support automated matching & Staff/time cost (38%) | Staff/time cost (40%)                 |

Likewise functional areas largely agree on the top three pain points of remittance processing with all having “*data elements missing*” and a “*lack of internal IT resources*” (Table 21). Only Accounting / General Ledger professionals, though, have “*back office systems do not integrate*” as a top three pain point and only A/R professional have “*files come in different formats*” as a top three pain point.

**Table 21: Top Three Pain Points of Remittance Processing by Function**

| <b>A/P</b>                          | <b>A/R</b>                            | <b>Purchasing Card</b>              | <b>Treasury / Cash Management</b>   | <b>Procurement</b>                  | <b>Accounting / General Ledger</b>         |
|-------------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|
| Data elements missing (39%)         | Data elements missing (47%)           | Lack of internal IT resources (43%) | Data elements missing (45%)         | Lack of internal IT resources (41%) | Lack of internal IT resources (42%)        |
| Staff/time cost (34%)               | Files come in different formats (45%) | Staff/time cost (39%)               | Lack of internal IT resources (40%) | Data elements missing (38%)         | Back office systems do not integrate (41%) |
| Lack of internal IT resources (33%) | Lack of internal IT resources (37%)   | Data elements missing (35%)         | Staff/time cost (39%)               | Staff/time cost (31%)               | Data elements missing (37%)                |

The top three pain points change somewhat when compared by the primary payment method to make and receive payments, summarized in Table 22. Respondents that are primarily paid by cards are the only group have as a top three barrier *“automation is not a priority for senior management”* and respondents that primarily pay by cards are the only group to have *“delays in collecting funds.”*

**Table 22: Top Three Pain Points of Remittance Processing by Primary Payment Method**

|                                | <i>All or mainly by check</i>                             | <i>Mainly by ACH</i>  | <i>Mainly by card</i>  |
|--------------------------------|---|---|--|
| <b>Payment method made</b>     | Lack of internal IT resources to support automating (48%) | Data elements missing (49%)                                 | Data elements missing (50%)  |
|                                | Data elements missing 44%)                                | Files come in different formats (42%)                       | Back office systems do not support automated matching (33%)                        |
|                                | Files come in different formats (40%)                     | Staff/time cost (40%)                                       | Delays in collecting funds & Staff/time costs (tied - 33%)                         |
| <b>Payment method received</b> | Staff/time cost (43%)                                     | Data elements missing (42%)                                 | Back office systems do not support automated matching (46%)                        |
|                                | Lack of internal IT resources to support automating (45%) | Files come in different formats (42%)                       | Lack of internal IT resources to support automating (46%)                          |
|                                | Data elements missing (39%)                               | Back office systems do not support automated matching (34%) | Automation is not a priority for senior management & Staff time / cost (tied -31%) |

Almost 200 comments were provided by respondents to explain the selection of their most critical pain point associated with remittance processing. A sampling of comments follows:

*“Missing data elements and lack of consistency in formatting cause us to post remittances to our customers late and often requires communication back and forth between us and the customer to determine what they are paying.”*

*“Electronic files are different. This is tough for IT and other organizations to efficiently capture and post remittance files. Lots of hours [are] needed to change programming to capture certain items.”*

*“Staff time and cost associated with entering remittance data [is a top pain point] - if sent in different formats and from several sources, the sheer act of locating the remittance is difficult.”*

*“The largest barrier has been the passing of adjustments to payments that are unrelated to any transaction in the receiving system - “stand alone” adjustments. The second largest barrier is the passing of meaningful information to allow for automated processing - i.e.,*

customer passes their procurement purchase order number on the payment as opposed to the invoice number that is being paid.”

“Our current A/P software doesn't generate electronic remittance information so we have to do a manual remittance process with every electronic payment. We still prefer electronic payments but it's not providing the time/cost savings it should.”

## ***F. Potential Solutions***

A key aspect of the survey was to ask respondents for input on what solutions will help them use more e-payments and e-remittance and improve remittance processing and reconciliation. To this end, the survey posed five potential solutions to help businesses improve payment and remittance processing and move closer to straight through processing. These are defined in Table 23.

**Table 23: Potential Solutions Presented in Survey**

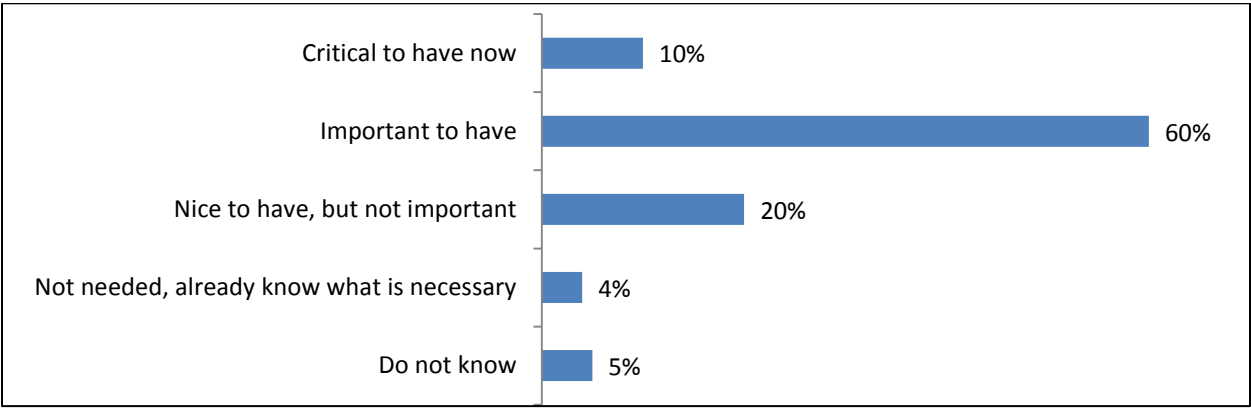
| <b><i>Concept</i></b>   | <b><i>Description</i></b>  | <b><i>Problem Addressed</i></b>  |
|---|--|--|
| <b><i>1 – Educational Opportunities</i></b>   | Provide education to businesses on making & receiving e-payments, on exchanging e-remittance information & on reconciling the two.   | Businesses lack the information & education they need about the steps to take to increase their use of e-payments & the exchange of automated remittance information due to a lack of information. |
| <b><i>2 – Secure Trading Partner (Buyer/Seller) Reference Directory</i></b>                               | A secure, non-proprietary e-directory that provides buyers & suppliers with information needed to make e-payments & reconcile with remittance data.  | Lack of ready, online access to the correct banking & payment information needed to process payments & remittance data electronically.   |
| <b><i>3 – Universal Remittance Warehouse</i></b>  | A universal remittance warehouse allows any business to deliver/store remittance information in a database & securely access it as needed. This warehouse supports any payment method & remittance type/format.  | Businesses need to be able to store &/or retrieve remittance information from a non-proprietary, widely available, & secure online database.   |
| <b><i>4 – Common Businesses Practices &amp; Processes to Reconcile Payments &amp; Remittance Data</i></b> | Develop & adopt common best practices & processes that all types of businesses can use with existing e-payments & remittance data.   | Different organizations have developed unique business processes, making it hard to automate the reconciliation of payment & remittance data, even when standards are used.                        |
| <b><i>5 – Work with Technology Vendors to Enable STP</i></b>  | Work with technology vendors to support e-payments & remittance & automatic reconciliation. These services include improved automated solutions as well as making solutions more readily available & accessible. | Some commonly used A/P, A/R & ERP packages cannot generate or accept automated remittance data formats currently in use.   |

Respondents were asked to evaluate the importance of each solution and provide additional information and reactions on how the solution should be implemented. Respondents were also asked to rank the effectiveness of each solution in comparison to the others. The discussion that follows considers reactions to each solution first, followed by the comparative results.

**1. Educational Opportunities**

Seventy percent of respondents deem as critical or important the need for more education on making and receiving e-payments and exchanging automated remittance information (Table 24).

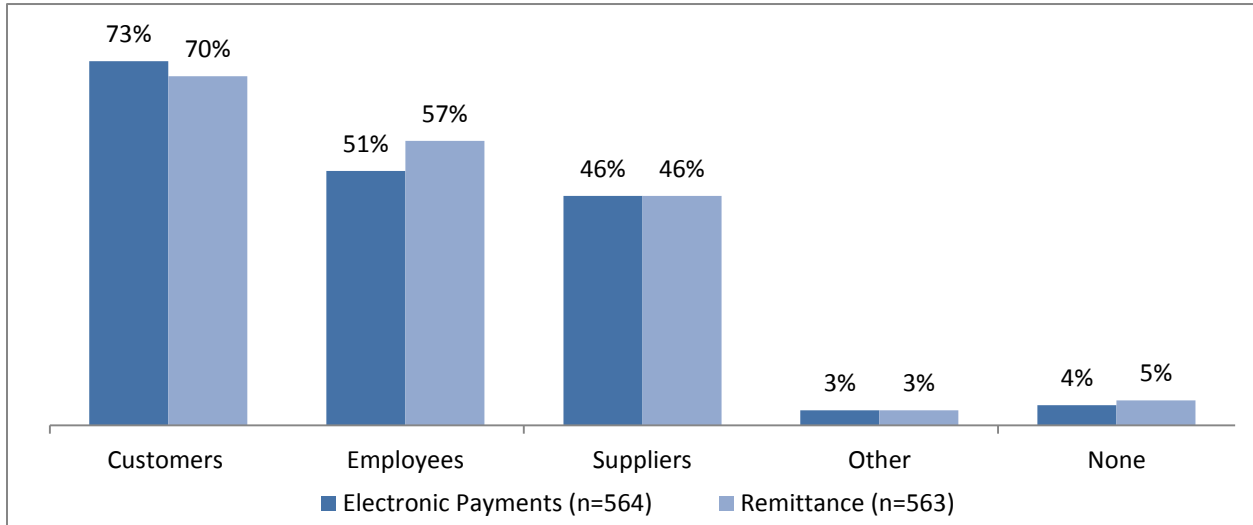
**Table 24: Need for Additional Education**  
(n= 524)



Large businesses especially see additional education as critical or important (reference Table B7 in Appendix B). Respondents across the board say that their customers as most in need of receiving education about both e-payments and e-remittance exchange, followed by employees and suppliers, as shown in Table 25.

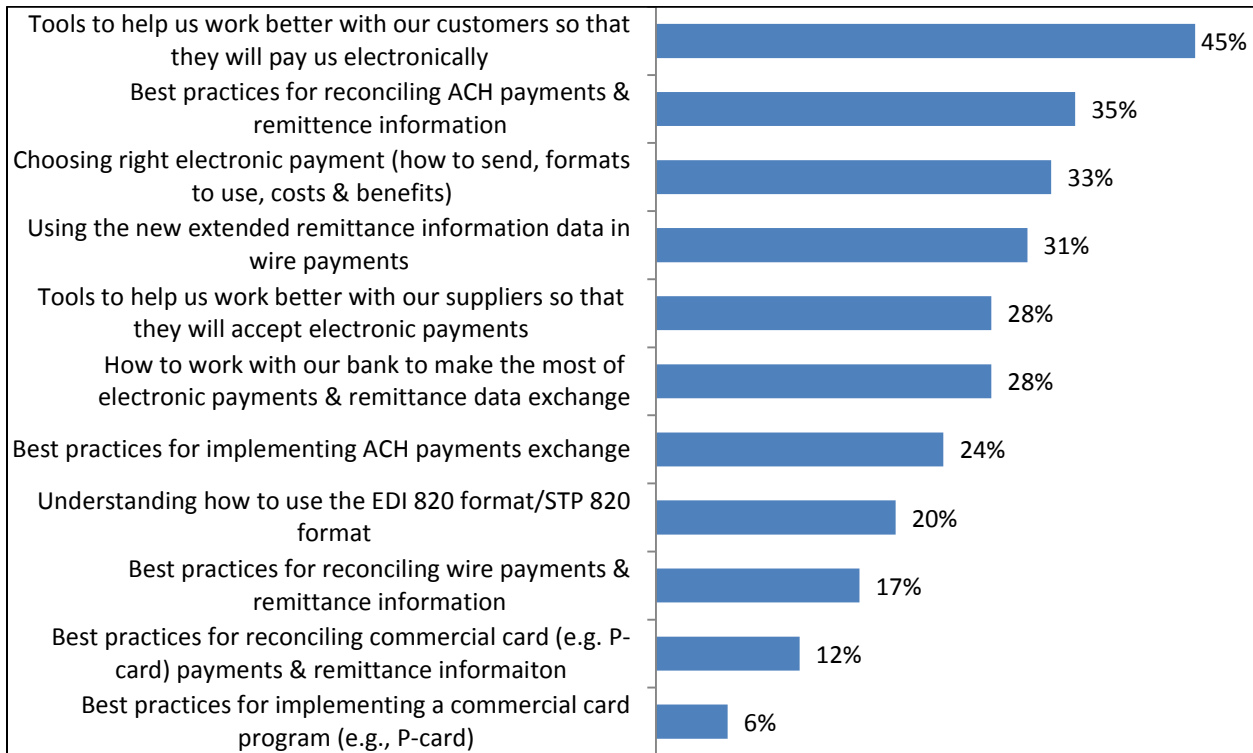


**Table 25: Who Needs Education about E-Payments & Remittance Exchange**



Educational topics that respondents rank as most important to provide are: *“tools to work better with customers so that they will pay electronically,” “best practices for reconciling ACH payments and remittance information,”* and *“choosing the right e-payment”* (Table 26).

**Table 26: Top Three Education Topics**  
(n=521)

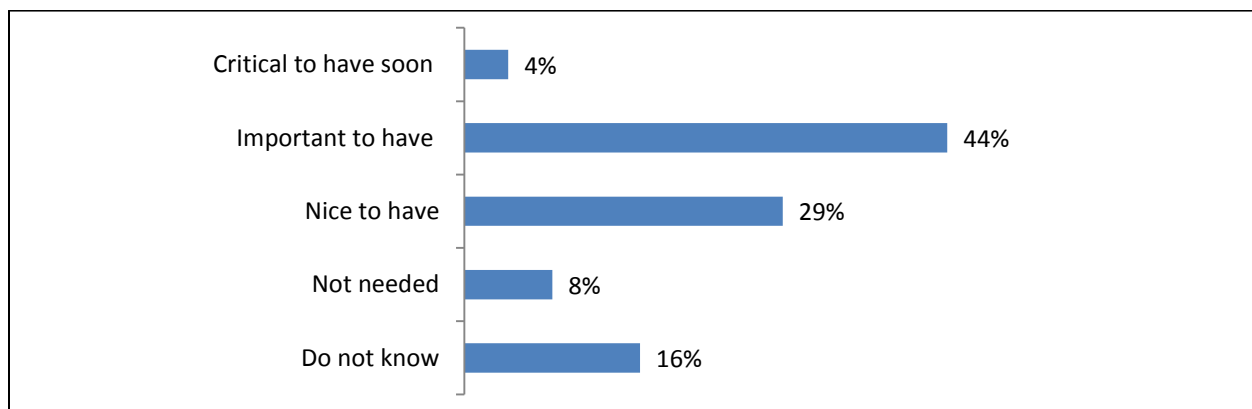


Several respondents suggested specific educational topics beyond the list provided. These include detecting and dealing with fraud, how to make and receive international payments, and how to integrate payments and remittance data into back office software.

## **2. *Secure Trading Partner Reference Directory***

Almost half (46 percent) of respondents view the availability of a secure reference directory for B2B transactions as critical or important (Table 27).

**Table 27: Importance of a Secure Trading Partner Directory**  
(n=503)

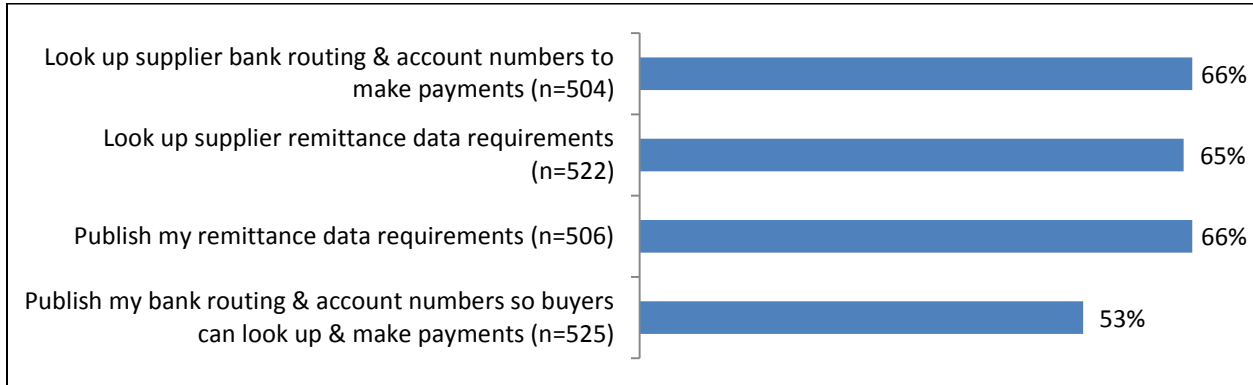


Over half of respondents agree that a secure trading partner directory provide the following capabilities as shown:

- 1) Look up supplier bank routing and account numbers
- 2) Look up supplier remittance data requirements
- 3) Publish own remittance data requirements
- 4) Publish own bank routing and account numbers

Respondents were more interested in a secure reference directory to look up supplier bank routing and account numbers than they were in making their own bank routing and account numbers available (Table 28).

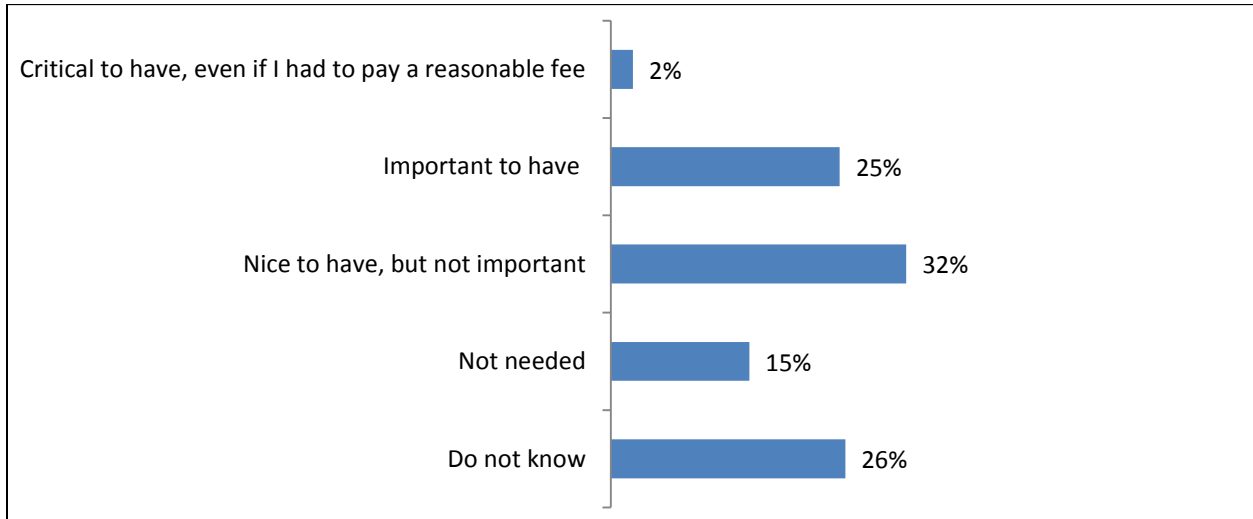
**Table 28: Features of a Secure Trading Partner Directory  
Ranked Very or Somewhat Important**



### 3. Universal Remittance Warehouse

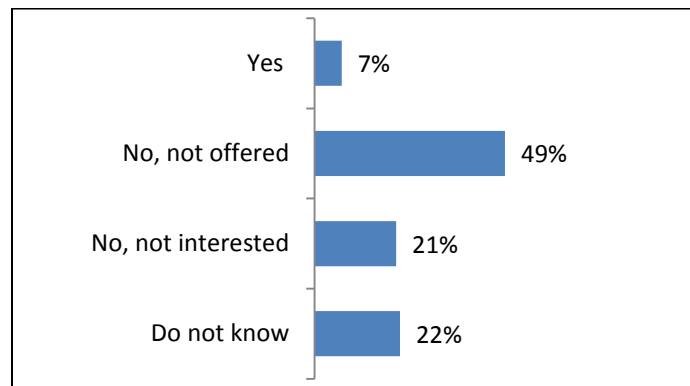
Only 27 percent of respondents characterized having a universal remittance warehouse as critical or important, as shown in Table 29. Further, a comparatively large number of respondents describe a warehouse as “not needed” (15 percent) or they have no view on its importance, i.e., “do not know” (26 percent).

**Table 29: Importance of a Universal Remittance Warehouse  
(n=498)**



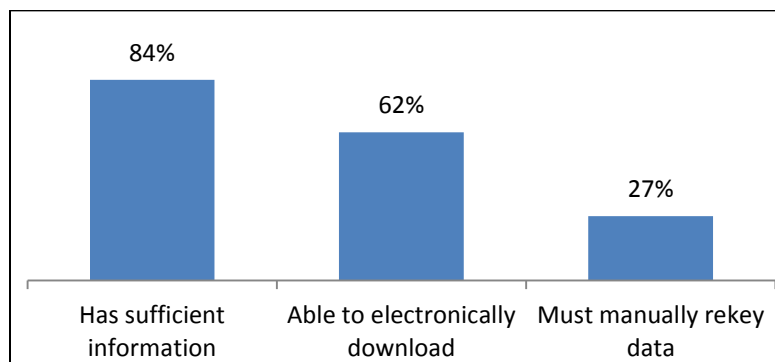
Fewer than one in ten respondents (7 percent) actually use a remittance warehouse (Table 30). About half (49 percent) of respondents do not use a remittance warehouse because no such service is offered to them and about two in ten (21 percent) state they have no interest in such a service.

**Table 30: Current Warehouse Usage**  
(n=506)



Of those using warehouse services, more 80 percent state that their remittance warehouse contains sufficient data to post and reconcile payments, and over 60 percent report that they can download data from it electronically (Table 31).

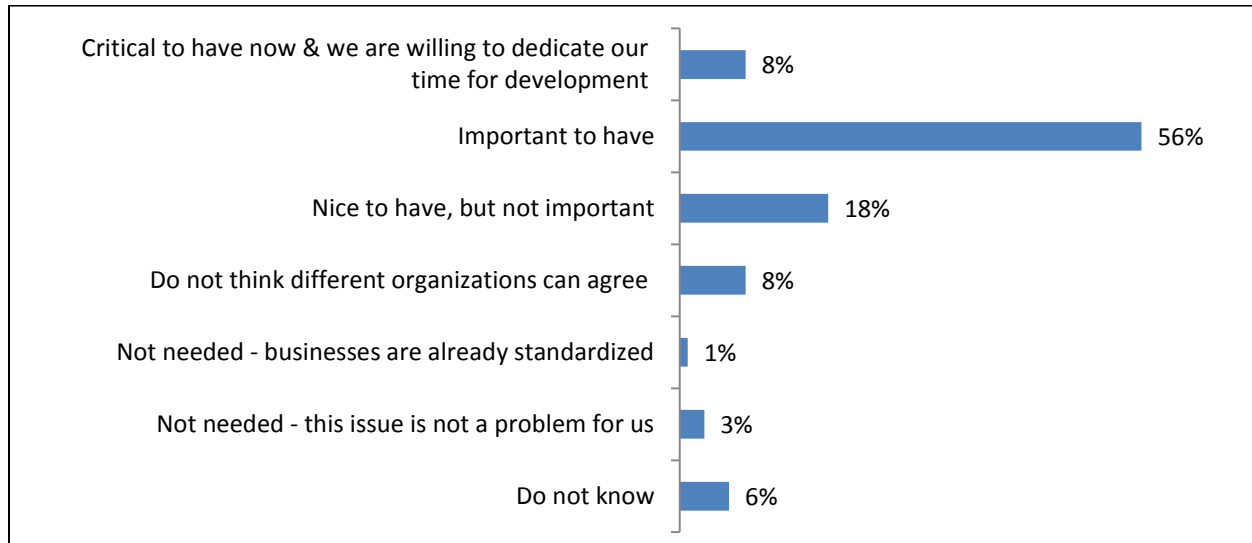
**Table 31: Remittance Warehouse Has Sufficient Data & Is Downloadable**  
(n=37)



#### **4. Common Business Practices**

Nearly two-thirds of respondents (64 percent) say that they have a critical or important need for more common business practices and processes to reconcile payments and remittance data (Table 32).

**Table 32: Importance of Common Business Practices**  
(n=491)

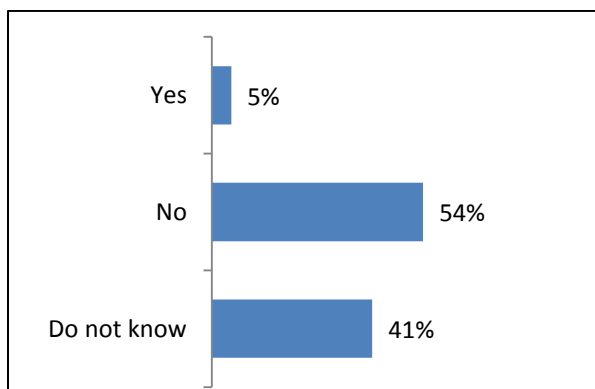


Additional questions were asked about two specific areas of business practice/process: use of deduction codes and the X12 EDI 820 or STP 820 format.

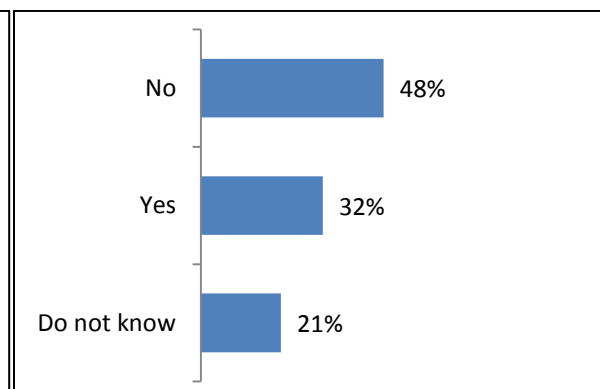
Regarding the former, most (54 percent) respondents say their customers and suppliers do not use a common set of codes; however, only a minority (32 percent) consider this a problem (Tables 33A and 33B).

**Table 33: Deduction Code Practices**

**33A: Do All Your Customers & Suppliers Use Same Set of Deduction Codes?**  
(n=101)



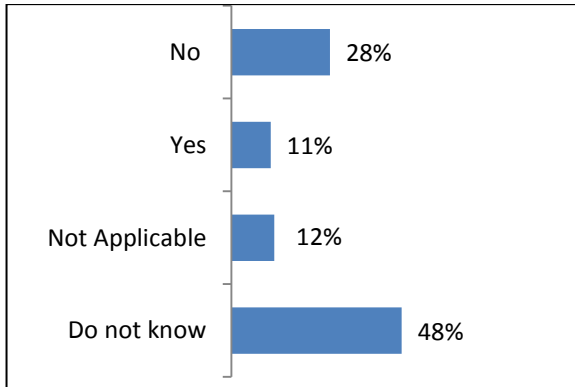
**33B: Is This a Problem?**  
(n=101)



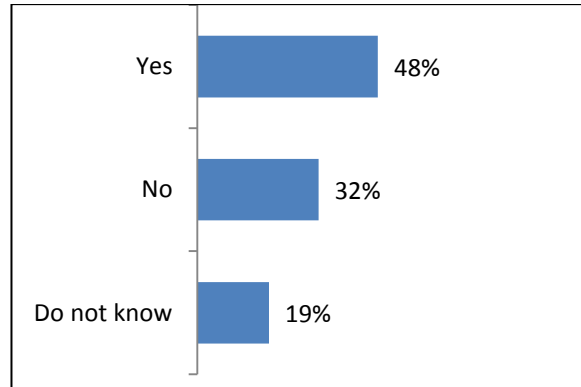
As for usage of standard remittance formats, over one-quarter (28 percent) of respondents say that suppliers and customers do not use the X12 EDI 820 or STP 820 formats in a standard way and almost half (48 percent) characterize this lack of standardization as a problem (Table 34).

**Table 34: EDI 820 & STP 820 Practices**

**34A: Do All Your Customers & Suppliers  
Who Use EDI 820/STP 820  
Use It in a Standard Way?**  
(n=499)



**34B: Is This a Problem?**  
(n=151)



Respondents were asked to identify any other non-standard business practices/ processes that make it harder to automatically reconcile e-payments and remittance data. One such response captures the problem well: *“Each of our customers is unique. [Thus, there is] little or no commonality in orders, terms, invoicing, etc.”* Collectively, open-ended responses focused on four areas:

- **Missing Information.** Respondents cite as a frequent problem that customers do not include an invoice or account number in the remittance data provided, making it difficult to match the remittance to a payment.
- **Inconsistent Formats.** Remittance data is received in a wide variety of formats/ standards. Plus, even when the same format/standard is used, such as the X12 EDI 820 standard, significant variability exists in the data supplied. This does not mean the provider of the data is not conforming to the standard. In many cases, the standard itself enables this flexibility.
- **Non-standard Use and Non-approved Deduction Codes.** Deduction code problems are cited frequently. Examples include customers that identify deductions inappropriately—e.g., sending negative invoice payments for adjustments, taking unauthorized deductions, and taking deductions that cannot be tied to an invoice.
- **Other Business Practice/Process Issues.** Other issues identified are timing problems, such as receiving a remittance advice before a payment is received and challenges related to reconciling card payments to invoices.

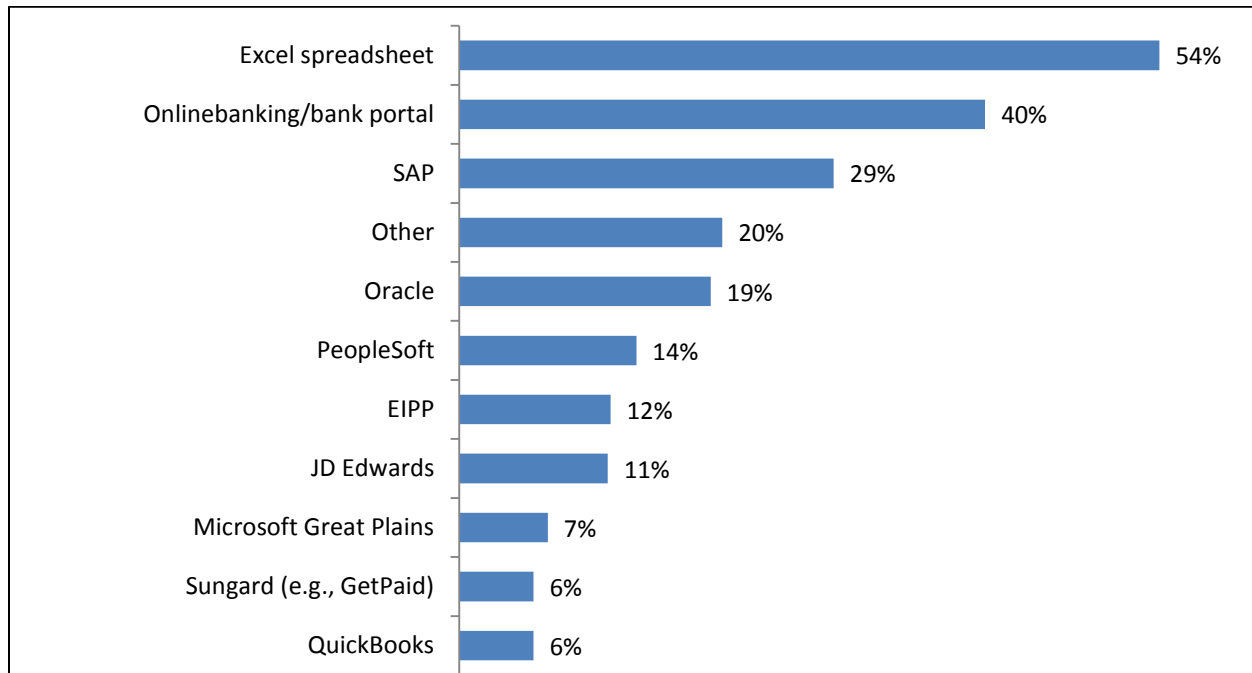
## 5. Technology Vendor Solutions

Respondents were asked a set of questions about the characteristics of technology solutions they currently use and the importance of technology solutions to support the use of e-payments and remittance data. Both categories of responses are discussed below.

### a) Characteristics of Technology Solutions in Use

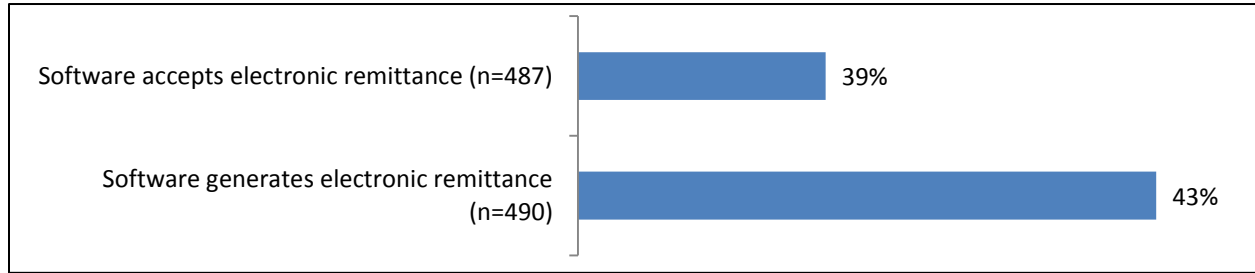
Respondents use a wide variety of software solutions to support payments and remittance processing, as shown in Table 35. The software solution used by the largest percentage of respondents is Excel spreadsheets (54 percent), followed by online banking/bank portal (40 percent) and SAP (29 percent).

**Table 35: Software Solutions Used**  
(n=456; multiple selections allowed)



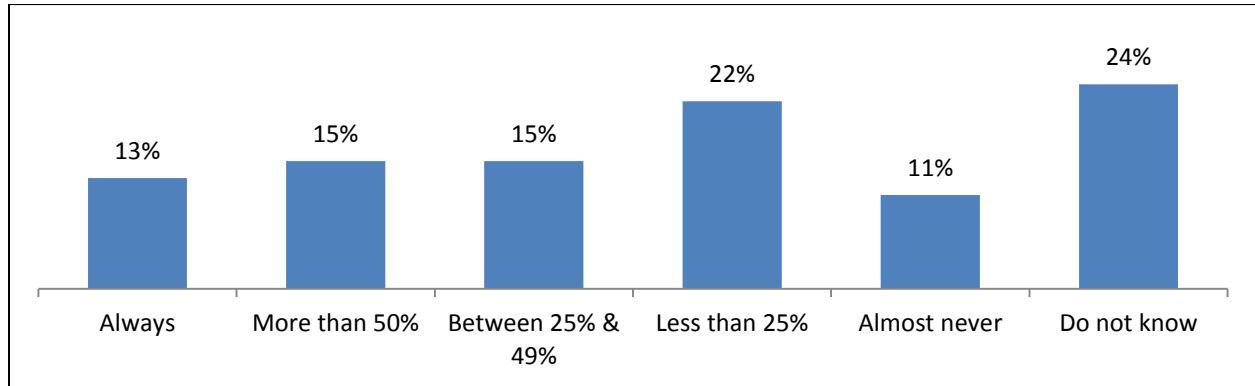
Over forty percent (43 percent) of respondents say the software they use can generate remittance data that can be sent to a supplier electronically and almost forty percent (39 percent) say that they can accept e-remittance data provided by a customer to support automated reconciliation with payments received (Table 36).

**Table 36: Software Capability vis-à-vis E-Remittance Data**



However, over forty percent (43 percent) also say that manual intervention is required to correct e-remittance data they receive more than one-quarter of the time (Table 37).

**Table 37: Frequency with which Manual Intervention Is Required to Correct E-Remittance Data Received (n=486)**

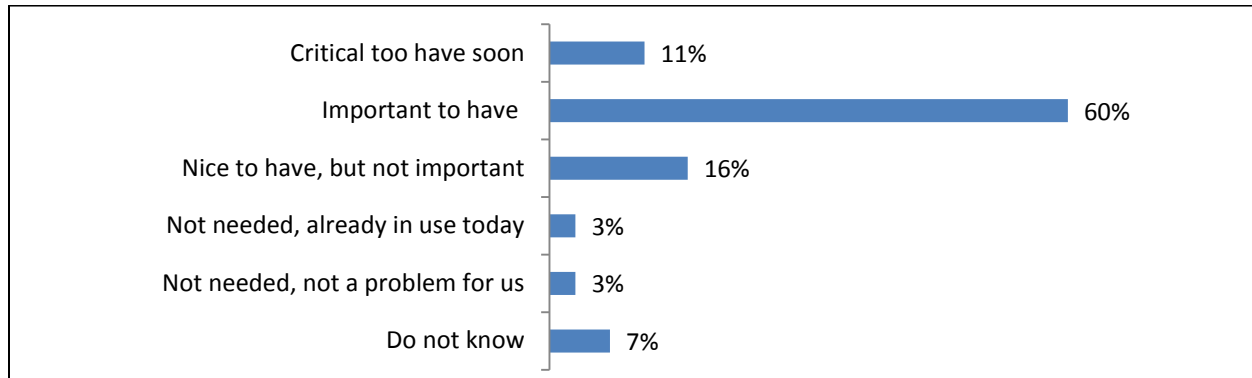


**b) Importance of Effective Technology Solutions**

Seven out of ten (71 percent) respondents say it is critical or important to have “technology [solutions that] help [their] organization to exchange more e-payments and remittance data” (Table 38).

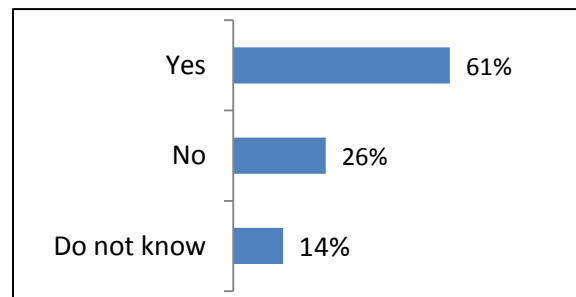


**Table 38: Importance of Technology**  
(n=485)



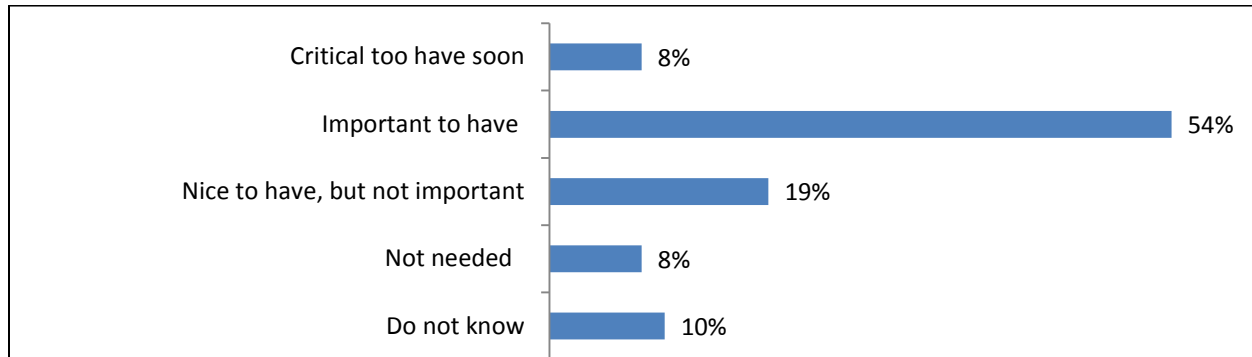
Large businesses are more likely to rank the need for effective technology solutions as, “critical to have soon” or “important to have”; refer to Table B7 in Appendix B. Several functional areas, likewise, placed higher importance on technology including Treasury (78 percent), procurement (77 percent), P-card (76 percent), and A/P professionals. Moreover, six out of ten (61%) respondents agree that the lack of “available automated solutions” makes it harder for their organization to use more e-payments and remittance data (Table 39).

**Table 39: Lack of Automated Solutions Makes It Harder to Use More E-Payments & Remittance Data**  
(n=148)



Respondents expressed interest in better integrated solutions from vendors; over sixty percent say it is critical or important to have “technology vendors [provide solutions to] better integrate and translate to help reconcile remittance data with payments” (Table 40).

**Table 40: Importance of Technology Vendor Solutions**  
(n=484)

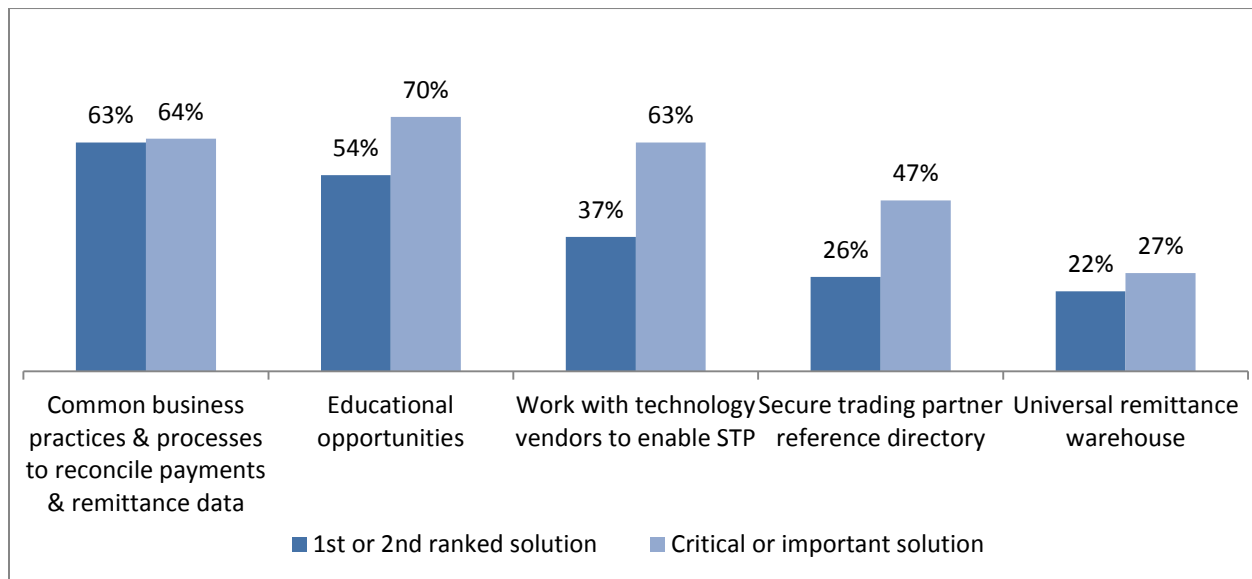


## 6. *Relative Ranking of Solutions*

Respondents ranked the five solutions relative to each other in terms of their effectiveness in moving their organization to increased use of e-payments and processing of e-remittance data (Table 41). Solution 4, common business practices and processes, is ranked as the first or second most effective solution by 63 percent of respondents. This is followed closely by Solution 1, educational opportunities, which over half of respondents (54 percent) rank as the first or second most effective solution. Fewer respondents rank work with technology vendors, secure trading partner directory, or universal remittance warehouse as the first or second most effective solution in helping their organizations exchange more e-payments and remittance data.

Table 41 contrasts the solution evaluation of critical and important (reference Tables 24, 27, 29, 32, and 40) to the relative ranking of the solutions. Solution 1, educational opportunities, is rated as critical or important by most respondents (70 percent). Solution 4, common business practices, and Solution 5, work with technology vendors to enable STP, are rated as critical or important by 64 and 63 percent of respondents, respectively. Across the board, small businesses evaluate the solutions lower than medium and large size businesses (reference Table B7 in Appendix B).

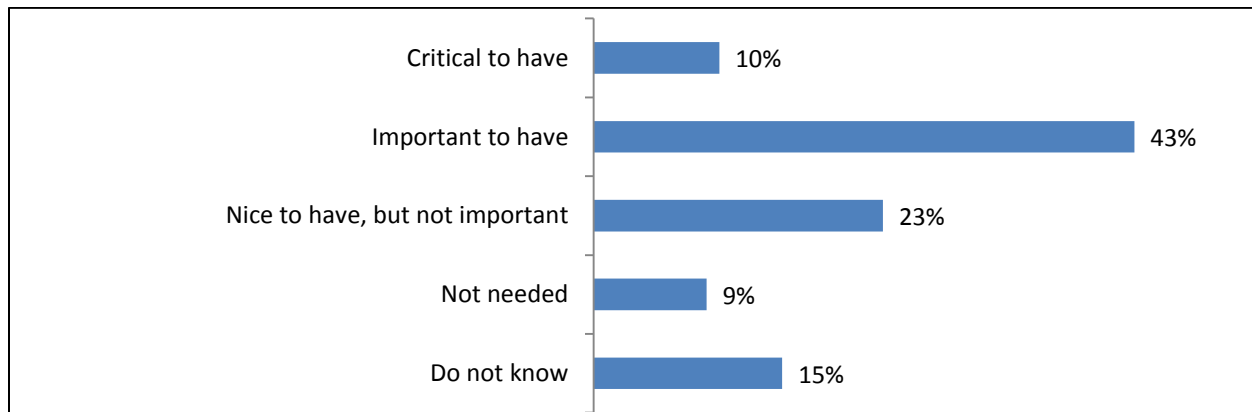
**Table 41: % of Respondents Ranking Solution as Most or Second Most Effective & as Critical or Important**  
(n=378)



## G. Remittance Standards

Finally, respondents were asked about the importance of having a “*new internationally recognized format in current technologies*” to move their businesses “*further toward electronic processing.*” Over half (53 percent) of respondents identify this need as critical or important (Table 42). Not surprisingly, as shown by Table B7 in Appendix B, more large businesses view this capability as important (59 percent) compared to small (39 percent).

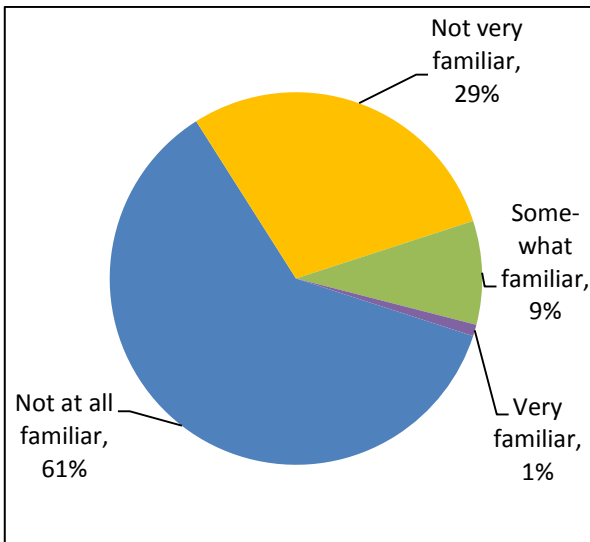
**Table 42: Importance of New Internationally Recognized Format in Current Technologies**  
(n=468)



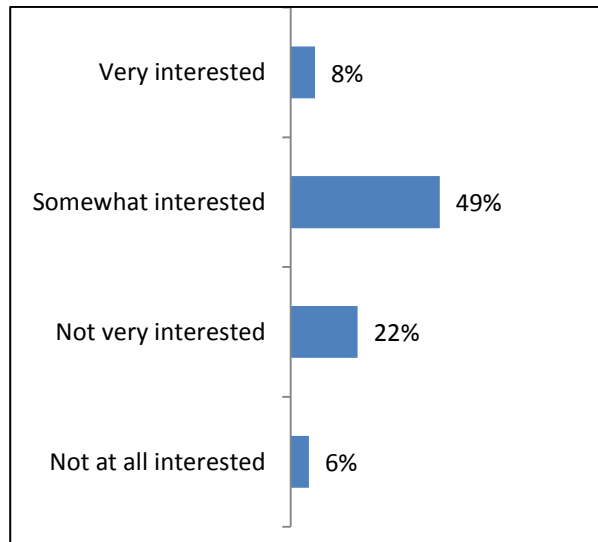
Despite these overall views, only 9 percent of respondents are familiar with ISO 20022,<sup>5</sup> the international framework for development and maintenance of financial services messages, including payment and remittance data message standards. Among respondents familiar with ISO 20022, most (57 percent) are very or somewhat interested in the exchange of remittance data via an ISO 20022 format. (Table 43)

**Table 43: Familiarity & Interest in ISO 20022 to Exchange Remittance Data**

**Table 43A: Familiarity with ISO 20022**  
(n=468)



**Table 43B: Interest in ISO 20022**  
(n=43)

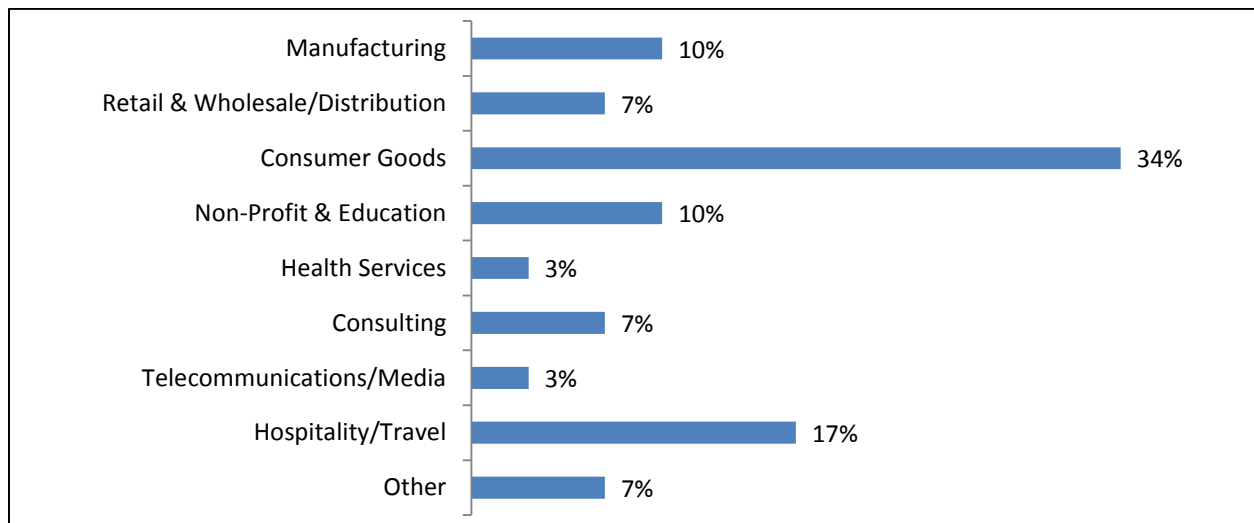


<sup>5</sup> ISO (International Organization of Standardization) oversees the ISO 20022 standard, which specifies a framework and governance structure for development, maintenance, and approval of ISO 20022 messages. ISO 20022 payment messages are developed in a technical format (currently XML) that is preferred by many businesses.

## VI. Comparison of Findings to Smallest Businesses

Mineral Tree, a payment service provider and consultant to small businesses, conducted phone interviews with 29 very small businesses (under \$2 million annual revenue) using a subset of the survey questions. The industries represented are shown in Table 44.

**Table 44: % Respondents by Industry Segment of Smallest Businesses**  
(n=29)

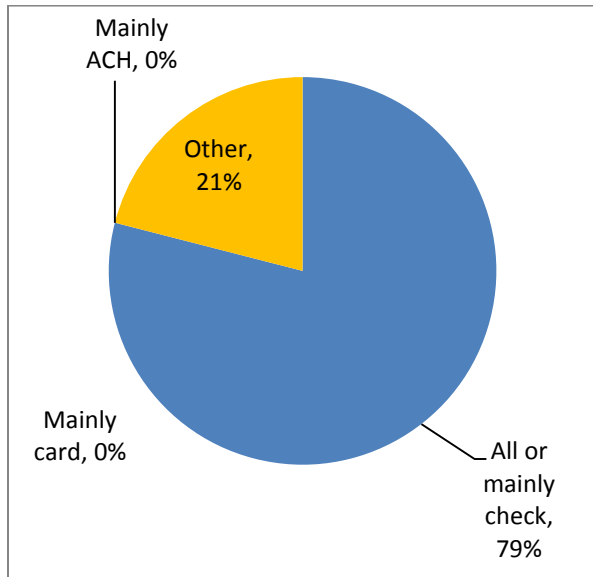


Like the small business respondents in the RC survey (Table 5), 79 percent of the smallest businesses report that they always or mainly use checks for making payments. However, none of the smallest businesses report that they make payments mainly by ACH or card.

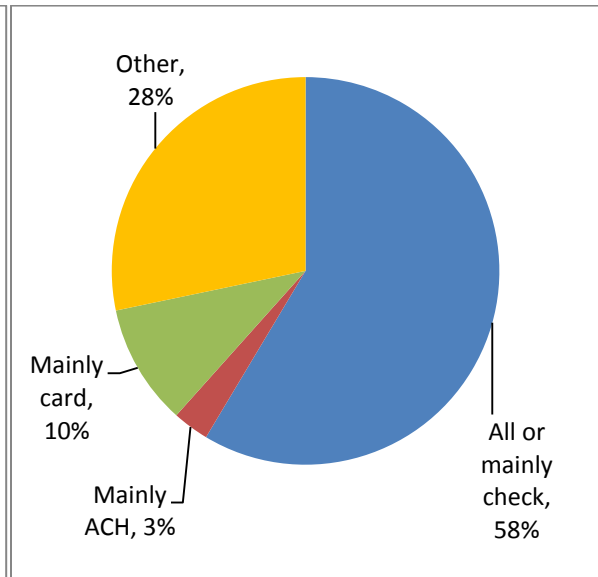
Over half (58 percent) of the smallest businesses report that for payments received, they primarily receive checks, while almost three-fourths (73 percent) of the small businesses of the aggregate survey respondents primarily receive checks (Tables 45A and 45B; reference Table 4A, 4B, and 5 for comparison to aggregate results).

**Table 45: Primary Payment Methods of Smallest Businesses**

**Table 45A: Primary Method  
for Making Payments**  
(n=29)



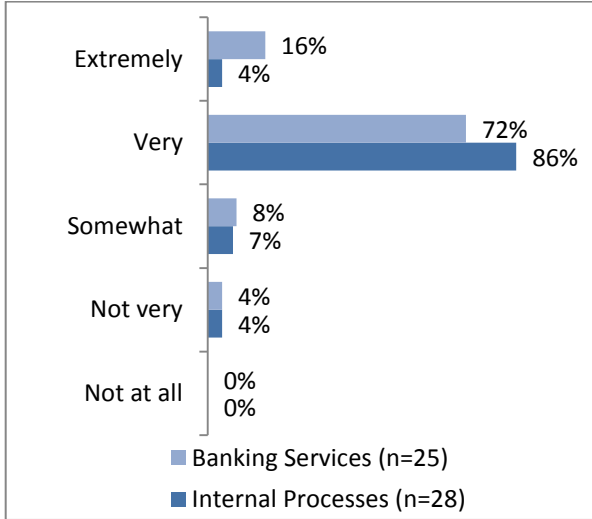
**Table 45B: Primary Method  
for Receiving Payments**  
(n=29)



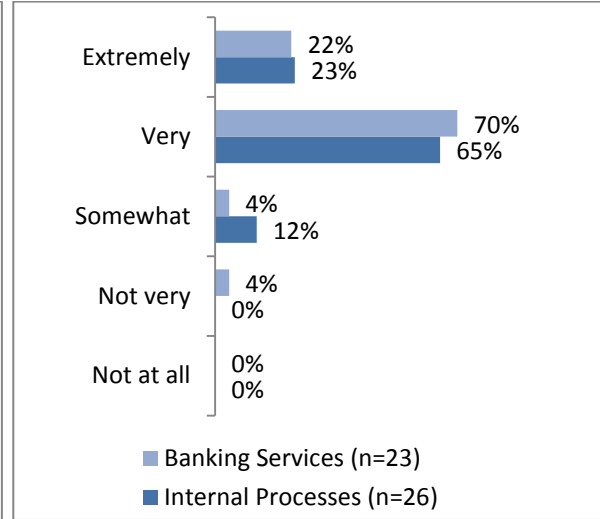
The smallest businesses were even more satisfied with the effectiveness of their internal processes and banking services for making and receiving payments than were the small businesses in the RC survey. Ninety percent of the smallest business respondents describe their internal processes and 86 percent describe their banking services as extremely or very effective in meeting their A/P needs (i.e., for making payments) compared to 55 percent and 61 percent, respectively, of the small businesses in the aggregate survey results. Eighty-eight percent of the smallest business respondents describe their internal processes and 92 percent describe their banking services as extremely or very effective in meeting their A/R needs (i.e., for receiving payments) compared to 47 percent and 56 percent, respectively, of the small businesses in the aggregate survey results (Tables 46A and 46B; reference Table 7 and Table B3 in Appendix B for comparison to aggregate results).

**Table 46: Effectiveness Meeting A/P & A/R Needs of Smallest Businesses**

**Table 46A: Effectiveness of Internal Processes & Banking Services to Meet A/P Needs**

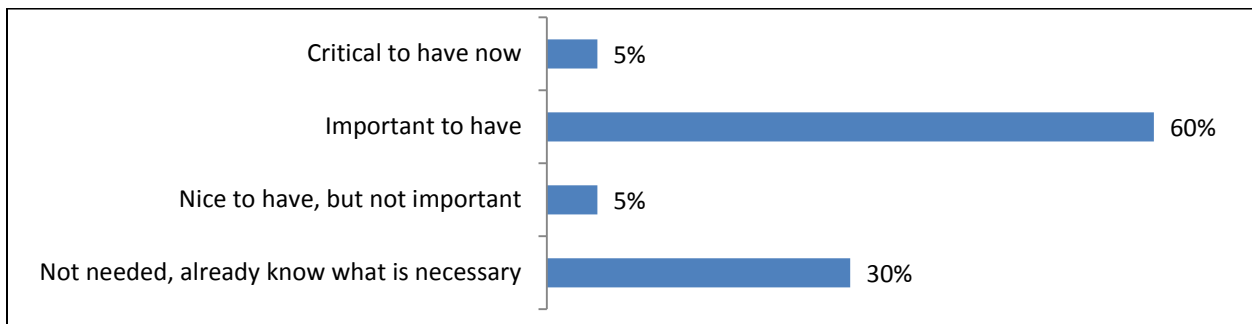


**Table 46B: Effectiveness of Internal Processes & Banking Services to Meet A/R Needs**



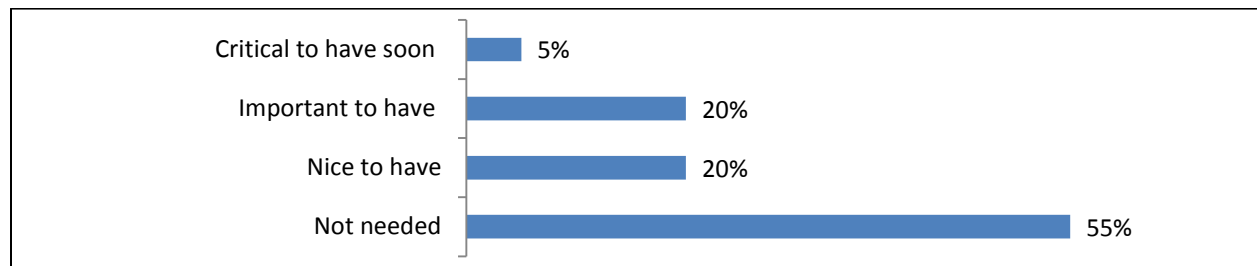
The smallest businesses were asked their views on two solutions: additional education and the need for a secure trading partner reference directory. As depicted in Table 47, 65 percent of the smallest businesses say that additional education is critical or important, similar to the 60 percent of the small businesses that supported more education in the RC survey (reference Table B7 in Appendix B).

**Table 47: Need for Additional Education by Smallest Businesses (n= 20)**



One quarter of the smallest businesses responded that a secure trading partner reference directory was important or critical compared to almost half of all respondents to the RC survey. Over half (55 percent) of the smallest businesses responded that a secure trading partner reference directory was not needed, compared to less than 10 percent of all RC respondents (Table 48, Table 27, and reference Table B7 in Appendix B).

**Table 48: Importance of a Secure Trading Partner Directory by Smallest Businesses**  
(n=20)



Thus the smallest businesses largely support the need for more education, consistent with RC survey aggregate results, but express less interest in a secure trading partner reference directory.



## VII. Conclusions and Implications for Action

The survey results detailed in Sections IV and V suggest several conclusions. The order of the conclusions generally parallels the order of the results presented above.

### ***A. Differences by Respondent Characteristics***

In aggregate, respondent views share more in common than they diverge due to characteristics such as business size, payment profile, or functional responsibility. Thus, most of the discussion of conclusions and implications for action applies to all respondents. That said, some differences among groups of respondents warrant mentioning.

#### ***1. Where Size Matters***

Consistent with other research results,<sup>6</sup> the RC survey shows that the majority of B2B transactions are still made and received by check; moreover, checks as a portion of total payments tend to be higher among smaller businesses than among larger businesses.

As to the reasons that small businesses continue to rely disproportionately on check payments, this may be due in part to the lack of comparable services made available to larger businesses by vendors or banks, cost structures that disadvantage low payment volumes, lack of education about e-payments and e-remittance, or the lack of a perceived need. Smaller businesses appear more satisfied than medium and large businesses with the effectiveness of their internal processes and banking services for both A/P and A/R needs. This was especially evident in the data for the smallest businesses.

One other difference due to business size—is that larger businesses cite more often the need for a new international remittance standard to facilitate more e-payments.

**Actions Suggested.** These results suggest an even greater need to promote the use of e-payments and e-remittance data to small businesses than to large, with a focus on different educational materials. In particular, small businesses may need more information about the types of e-payments and their relative merits, the benefits of using e-payments and e-remittance data, and how to implement and use services that support e-payments such as ACH. Bank and other service providers may need to offer more services in general to smaller businesses and to design these services specifically to meet the needs of small businesses. In addition, larger trading partners can help smaller businesses adopt e-payments and e-remittance.

### ***B. Effective or Not?***

All businesses describe as more effective than not their current internal processes and the services provided by their bank vis-à-vis payments and remittance processing. Yet these

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<sup>6</sup> 2010 Federal Reserve Retail Payments Study, 2010 AFP Electronic Payments Study

same businesses are keenly interested in using more e-payments and e-remittance data. They also identify many barriers to increased use of electronics, many pain points with their current remittance data processing experience, and many opportunities to improve in these areas. What explains this seeming contradiction in views? One possibility is that respondents believe that they and their bank service providers are doing the best they can within a broader set of challenges that are outside their control. From this perspective, effectiveness means that respondents' expectations are being met by existing processes and services, even though they also see improvement opportunities that go beyond current expectations.

Another possibility relates to priorities. Working to improve the efficiency of back office processes may be a low priority when compared to other business objectives that tie more directly to the bottom line. This may support a characterization of general effectiveness with current practices and services, despite opportunities for improvement.

**Actions Suggested.** The large number of improvement opportunities identified indicates a need for follow-up actions, particularly to address improvements most desired. These are discussed in the section below.

### ***C. Opportunities for Improvement***

Opportunities to increase the use of e-payments and e-remittance data and make end-to-end processing more efficient fall into four general categories. These follow to a large extent the potential solutions presented in the survey.

#### ***1. More Common Business Practices and Processes***

Processing payments and remittance data is much less efficient given the lack of use of common, reasonably standard remittance data formats and processes. One widely-used standard, the X12 EDI 820, allows flexibility in its implementation, which is beneficial as businesses can adapt the standard to their specific needs. However, this also means businesses must develop unique processing arrangements with many of their trading partners and rely on manual processes more than desired. Almost three out of ten respondents said that trading partners do not use the EDI standard as they do, and over 90 percent use different deduction codes. One outcome is that only 26 percent of respondents that receive e-payments carrying remittance data are able to reconcile these data automatically and only 32 percent of respondents that receive remittance information directly from a trading partner are able to reconcile it automatically.

Not surprisingly, developing more common business practices and processes is ranked most highly by respondents when compared with other possible solutions.

**Actions Suggested.** In 2012 a work group of the RC began development of a simplified subset of the X12 426 Adjustment Reason code standard, mapping the existing list of over 600

codes to about 70 standard deduction codes.<sup>7</sup> Similar efforts should be undertaken, based on further research among business practitioners, to identify specific, existing practices and processes that would benefit most from developing more standard approaches to their use.

## **2. Education and Promotion**

Respondents frequently cite the difficulty of convincing customers and trading partners to send or receive e-payments and remittance data, and suggest education as a key strategy to address this barrier. For example, some respondents still prefer check to e-payments due to perceived benefits of float and lower fraud. These views reflect misunderstandings about e-payments that education can correct. Further, many businesses lack information on how to select the right e-payment for their situation, and how to make or receive e-payments and exchange remittance data. Education and promotion could also foster the implementation of more standard business processes and formats across customers and trading partners to improve efficiency and rectify problems with missing data and invalid data carried in existing formats. Targeted education is ranked second by respondents among the five potential solutions.

**Actions Suggested.** Many opportunities exist to educate business practitioners, about the benefits of e-payments and e-remittance data exchange and how to use these services. Where relevant, education should be tailored to differences in audiences—e.g., large versus small and e-payment savvy versus check-centric businesses. Also, banks and vendors that already provide payment and remittance processing services to businesses are especially well positioned to develop and provide the education and promotion described. According to respondents, education is most needed on the following topics: 1) *“Tools to help us work better with our customers so that they will pay us electronically”*; 2) *“Best practices for reconciling ACH payments and remittance data;”* and 3) *“Choosing the right electronic payment.”*

## **3. IT Support and Effective Software Solutions**

Access to IT resources and the availability of effective software solutions are essential to being able to make or accept e-payments and to automating the reconciliation of remittance data. Insufficient IT support and ineffective software solutions are mentioned as barriers to more adoption of e-payments and e-remittance data as pain points in current processes. Further, a large number of respondents noted the difficulty in getting senior management’s attention and support for securing corporate resources like IT.

All sizes and types of businesses complain about the lack of adequate technology support, although small businesses in particular view EDI formats as too complex and expensive to adopt. The lack of integrated technical solutions may be why all businesses have come to

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<sup>7</sup> The Deduction Code simplification project is targeted for completion by early 2013 with the publication of a guideline for use of the streamlined subset of X12 426 Adjustment Reason codes by Accredited Standards Committees X12 and X9.

rely on e-mail as a primary method of exchanging remittance, even though the data most often must be entered manually, even when the payment is made electronically.

Aside from Excel spreadsheets, the technology or software most often used by respondents for payments and remittance processing services is an online banking/bank portal. This is followed by a wide array of different software services including SAP, JD Power and Associates, and others. Thus, financial institutions and software service providers are a critical community to engage in efforts to provide better technology solutions to address gaps in the current processing of payments and remittance data from end-to-end. For example, a common complaint about remittance processing is that key information is missing from the remittance data, making automated reconciliation impossible. The software vendor community may be able to help address this complaint by ensuring that their products require the use of essential data fields and that these are used consistently with valid data.

**Actions Suggested.** Many opportunities exist to work with vendors and technology providers to improve software capabilities to generate and accept e-payments and e-remittance data and automatically reconcile payments and remittance. Opportunities also exist to educate business practitioners on how to effectively use software to interface these tools with back-office products. The RC could also initiate cross-vendor dialogue on ways to promote greater interoperability between vendor packages that would support common remittance formats and standards.

#### **4. *Remittance Standards***

Respondents believe that the inconsistent use of the current X12 EDI 820/STP 820 standard introduces errors and processing inefficiencies rather than advancing automated reconciliation. Just over one half of respondents said it is critical or important to have a new, internationally recognized remittance format using current technologies. While there was little familiarity with ISO 20022, of those that were familiar, over half were interested in examining it for usability. Only 16 percent of respondents expressed interest in adopting within the next two years the new wire format that enables extended remittance information in a wire transfer. This may reflect as much the level of familiarity with this new format as it does the level of interest in adopting it. Of those that said they were not interested in wire extended remittance, most said that they were not interested because they do not use wires or wires are too expensive.

**Actions Suggested.** In 2012, the RC began tracking and sharing information about an initiative led by IFX to develop an ISO 20022 extended remittance information message. The development is on track for ISO evaluation by mid-2013. Once approved by ISO, there is an opportunity for the RC to communicate the benefits of the new format and provide education on its use. There is also an opportunity for the RC to provide additional education on the wire extended remittance information format. In 2012, the RC provided education on the new X9 standard that allows banks to provide balance transaction reporting information to their corporate customers. This new standard, designed to replace the commonly used Bank

Administration Institute (BAI) and BAI2 formats, supports the ability for banks to provide wire and ACH remittance data to corporate customers.

## **5. *All Other Opportunities***

Respondents identified other opportunities to enhance the efficiency of their payments and remittance data processing. In general respondents understand the importance of technology solutions to help them exchange more e-payments and e-remittance data. There is solid interest (46 percent of respondents) in a secure trading partner reference directory.

**Actions Suggested.** In 2012, the RC began an initiative to discuss the feasibility of a secure trading partner reference directory. One step has been to flesh out the most essential business features of such a directory; work is underway to determine if some type of “proof of concept” or pilot is warranted.

## **6. *Summary Conclusions***

Bottom line, there is no “silver bullet,” “killer app,” or “ultimate solution” that will address all of the major barriers identified by business practitioners to greater adoption of e-payments, nor address all the pain points currently experienced with e-remittance data processing. Rather, a mix of the following is needed:

- Practical and actionable education on the benefits of e-payments and e-remittance, and how to use both most effectively.
- Practical actions to improve existing tools including standards, software solutions, and business practices.
- Identification and adoption of new solutions to address gaps with existing tools.

With continued efforts by committed participants, the Remittance Coalition’s goal of end-to-end automated processing of payments and associated remittance data is achievable over the longer term.

# **Appendix A - About the Remittance Coalition**

## **Overview of the Remittance Coalition**

The Remittance Coalition is made up of associations, organizations and individuals interested in working together to address payment and remittance-processing problems. The RC includes representatives from small and large businesses across all industries, banks, payment solution providers, software vendors, standards developers, and others.

## **Background**

While business-to-business (B2B) checks are declining, they are not declining as rapidly as consumer checks, despite the benefits businesses perceive in using electronic payments. Several research studies have found that a lack of simple, low cost, easy to use services, standards, and other tools that automate the reconciliation of payments and remittance data is a key barrier to higher adoption of electronic B2B payments.

To raise awareness about these issues and to identify ways to address the payments and remittance integration problem, an invitation-only workshop was hosted by the Payments Information & Outreach Office of the Federal Reserve Bank of Minneapolis and ASC X9 in June 2011. Meeting participants included about 50 representatives from diverse organizations. One outcome of the workshop was to form the Remittance Coalition to address the major issues raised during the workshop.

## **Problem Statement**

The RC's objective is to increase the efficiency with which B2B payments are made and reconciled by all types and sizes of U.S. businesses. The RC seeks to accomplish this objective through education and by promoting more unified standards and processes and common automated tools that support: (1) Using more electronic payments for B2B transactions, and (2) Originating and delivering electronic remittance information that can be associated easily with the payment.

## **Goals & Objectives**

Current RC objectives are to:

- Communicate & coordinate RC efforts among RC members; engage RC member in RC initiatives.
- Reach out to & educate key audiences about RC efforts and electronic payment and remittance processing topics.
- Provide actionable education to small businesses about how to use electronic payments & remittance processing options.
- Coordinate development and facilitate publication of a simplified list of deduction codes, and communicate its use and benefits to business practitioners and vendors.
- Facilitate development and publication a glossary of remittance related terminology and communicate and educate interested parties about its use and benefits.

- Facilitate development and publication of the remittance standards inventory and communicate and educate interested parties about its use and benefits.
- Inform interested parties about formats, standards & solutions available and under development that facilitate interoperability and end-to-end automated processing, such as the wire extended remittance format, the balance and transaction reporting format, ISO 20022 remittance message, and X12 EDI formats.
- Engage relevant technology/software vendors to support standards & solutions that facilitate interoperability and end-to-end automated processing.
- Facilitate further discussions on the merits and features of a secure B2B directory model, and support, as appropriate, industry actions to make practical progress .
- Investigate business practitioner's views on areas needing more standard business practices & processes related to electronic and remittance processing.

### **Remittance Coalition Organization**

Participation in the RC is open to any individual and organization interested in addressing the payment remittance-processing problem. The RC currently has almost 200 members.

As sponsors of the workshop that formed the RC, X9 and FRB Minneapolis coordinate, track, and communicate work on the action items identified by the coalition. Within X9, Subcommittee X9C provides this support.

### **Remittance Coalition Communications**

More information about specific RC projects can be found at the Federal Reserve Bank of Minneapolis' public website:

[www.minneapolisfed.org/about/whatwedo/paymentsinformation.cfm](http://www.minneapolisfed.org/about/whatwedo/paymentsinformation.cfm)

### **Meetings**

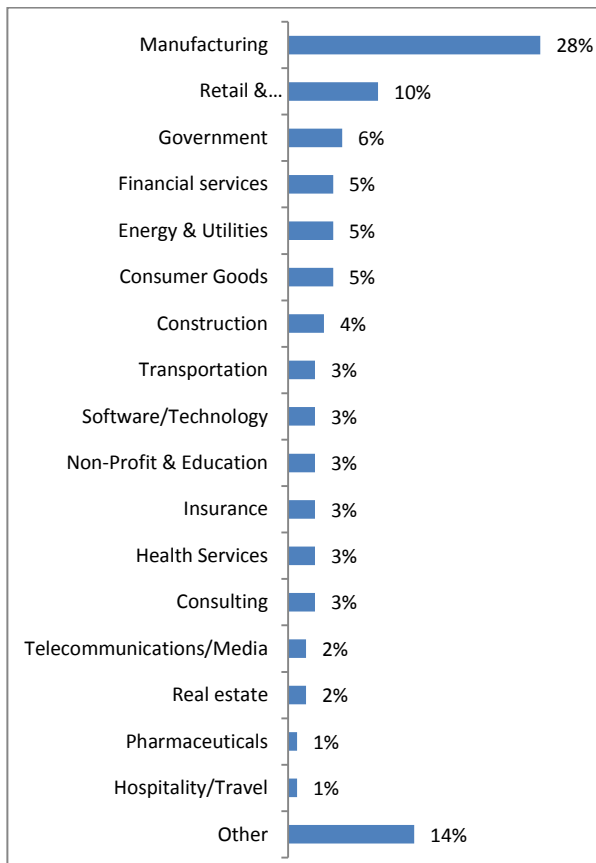
Meetings of the Remittance Coalition will be held approximately every quarter through conference calls and/or face-to-face meetings.

## Appendix B – Additional Survey Results

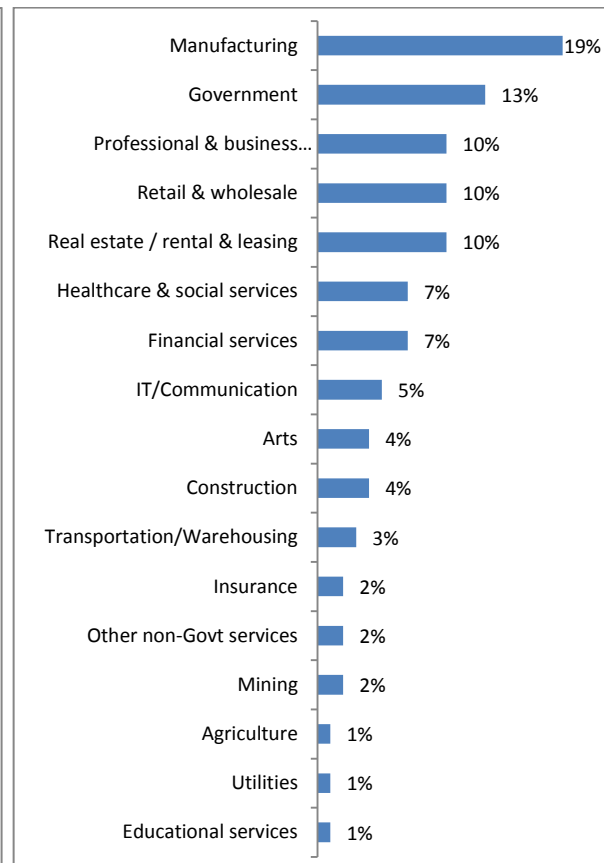
**Table B1: Responses by Association**  
(n=662)

| Association Distributing Survey                               | Number of responses | Percentage |
|---|---------------------|------------|
| Credit Research Foundation (CRF)                              | 308                 | 46%        |
| Association of Financial Professionals (AFP)                  | 191                 | 29%        |
| National Association of Purchasing Card Professionals (NAPCP) | 59                  | 9%         |
| Institute of Financial Operations (IFO)                       | 54                  | 8%         |
| Association of Small Business Development Centers (ASBDC)     | 50                  | 8%         |

**Table B2A: % of Respondents by Industry Segment**  
(n= 659)



**Table B2B: Department of Commerce**  
**December 2011**





**Table B3: Business Ratings of Extremely or Very Effective in Meeting A/P & A/R Needs by Business Size**

|   | <b>Small</b><br>( < \$50 M) | <b>Medium</b><br>(\$50 M to < \$500 M) | <b>Large</b><br>( \$500 M +) |
|---|-----------------------------|--|------------------------------|
| <i>Percent ranking <u>Internal Processes</u> “extremely” or “very effective” in meeting A/P Needs</i> | 55%                         | 53%                                    | 48%                          |
| <i>Percent Ranking <u>Banking Services</u> “extremely” or “very effective” in meeting A/P Needs</i>   | 61%                         | 60%                                    | 62%                          |
| <i>Percent ranking <u>Internal Processes</u> “extremely” or “very effective” in meeting A/R Needs</i> | 47%                         | 45%                                    | 44%                          |
| <i>Percent ranking <u>Banking Services</u> “extremely” or “very effective” in meeting A/R Needs</i>   | 56%                         | 51%                                    | 48%                          |

**Table B4: Awareness of & Interest in New ERI Format for Wires by Business Size (n=576)**

|                                   | <b>Small</b><br>( < \$50 M) | <b>Medium</b><br>(\$50 M to < \$500 M) | <b>Large</b><br>( \$500 M +) |
|-----------------------------------|-----------------------------|--|------------------------------|
| <i>Heard of ERI</i>               | 28%                         | 46%                                    | 52%                          |
| <i>We have not heard about it</i> | 35%                         | 25%                                    | 26%                          |
| <i>We are not interested</i>      | 7%                          | 5%                                     | 16%                          |
| <i>Do not know</i>                | 31%                         | 24%                                    | 16%                          |

**Table B5: Awareness of & Interest in New Extended Remittance Information Format for Wires by Job Function**  
(n=576)

|                                   | <i>A/P</i> | <i>A/R</i> | <i>Purchasing Card</i> | <i>Treasury / Cash Management</i> | <i>Procurement</i> | <i>Accounting / General Ledger</i> |
|-----------------------------------|------------|------------|------------------------|-----------------------------------|--------------------|------------------------------------|
| <i>Heard of ERI</i>               | 48%        | 40%        | 60%                    | 26%                               | 44%                | 40%                                |
| <i>We have not heard about it</i> | 29%        | 37%        | 20%                    | 18%                               | 17%                | 32%                                |
| <i>We are not interested</i>      | 4%         | 4%         | 9%                     | 0%                                | 6%                 | 12%                                |
| <i>Do not know</i>                | 18%        | 18%        | 10%                    | 57%                               | 32%                | 12%                                |

**Table B6: Top 3 Solutions by Business Size**

| <b>Small</b><br>( < \$50 M)     | <b>Medium</b><br>(\$50 M to < \$500 M) | <b>Large</b><br>( \$500 M +)    |
|---------------------------------|--|---------------------------------|
| Educational Opportunities (65%) | Common Business Practices (65%)        | Common Business Practices (65%) |
| Common Business Practices (59%) | Educational Opportunities (56%)        | Educational Opportunities (52%) |
| Tech Vendor Solutions (40%)     | Tech Vendor Solutions (37%)            | Tech Vendor Solutions (52%)     |

**Table B7: Rating of Solutions as “Critical or Important” by Business Size**

|   | <b><i>Small</i></b><br>( < \$50 M) | <b><i>Medium</i></b><br>(\$50 M to <<br>\$500 M) | <b><i>Large</i></b><br>( \$500 M +) | <b><i>All</i></b> |
|---|------------------------------------|--|-------------------------------------|-------------------|
| <b><i>Educational opportunities</i></b>                                     | 60%                                | 68%  | 75%                                 | 70%               |
| <b><i>Secure trading partner reference directory</i></b>                    | 40%                                | 50%  | 48%                                 | 47%               |
| <b><i>Universal remittance warehouse</i></b>                                | 17%                                | 26%  | 31%                                 | 27%               |
| <b><i>Common business practices &amp; processes</i></b>                     | 54%                                | 57%  | 70%                                 | 64%               |
| <b><i>Work with technology solution vendors</i></b>                         | 49%                                | 59%  | 69%                                 | 63%               |
| <b><i>Technology to exchange more e-payments &amp; remittance</i></b>       | 55%                                | 66%  | 79%                                 | 71%               |
| <b><i>New internationally-recognized format in current technologies</i></b> | 39%                                | 48%  | 59%                                 | 53%               |

## Appendix C - Remittance Coalition Survey

The **Remittance Coalition** is conducting this survey to assess which are the greatest obstacles to businesses achieving more fully electronic processing of payments and which of the possible solutions being considered would be most effective.

Your feedback will help shape the design and development of solutions intended to make the processing of payments and remittance information more efficient.

The **Remittance Coalition** is a voluntary alliance of organizations including banks, business associations, payment services providers, technical standards developers and others who are committed to enabling businesses to make more payments electronically and to deliver more remittance information electronically in a form that can be associated easily with the payment and business transaction.

To help us assess enhancement opportunities, we are asking that you, or appropriate colleagues, please complete the online survey by selecting the link below. The survey will take approximately 15-20 minutes to complete. Please submit your survey response by Friday, July 6, 2012.

Please note that Definitions of Terminology used throughout the survey are available through a link at the bottom of each page of the survey.

First, we have background questions about you and your organization to help in categorizing and analyzing the feedback we receive.

### **1a. Which of the following best describes your organization's industry? (Select one)**

- ☐ Consulting
- ☐ Construction
- ☐ Consumer Goods
- ☐ Energy (including utilities)
- ☐ Financial services
- ☐ Government
- ☐ Health Services
- ☐ Hospitality/Travel
- ☐ Insurance
- ☐ Manufacturing
- ☐ Non-profit (including education)
- ☐ Pharmaceuticals
- ☐ Real estate
- ☐ Retail (including wholesale/distribution)
- ☐ Software/Technology
- ☐ Telecommunications/Media

- ☐ Transportation
- ☐ Other, please specify

**1b. Which of the following best describes your organization's annual revenues? (Select one)**

- ☐ < \$ 500,000
- ☐ \$500,000 to <\$1.9 million
- ☐ \$ 2 to 10 million
- ☐ \$11 to \$49.9 million
- ☐ \$50 to \$99.9 million
- ☐ \$100 to \$249.9 million
- ☐ \$250 to \$499.9 million
- ☐ \$500 to \$999.9 million
- ☐ \$1 to \$4.9 billion
- ☐ \$5 to \$9.9 billion
- ☐ \$10 to \$20 billion
- ☐ > \$20 billion

**1.1 What are your primary responsibilities in your organization? (Select all that apply)**

- ☐ Accounts payable
- ☐ Accounts receivable
- ☐ Treasury/Cash management
- ☐ Procurement
- ☐ Purchasing Card
- ☐ Accounting/General Ledger/Controller
- ☐ Other, please explain

**1.2 What is your primary way of making payments to other businesses? (Select one)**

- ☐ Almost all paper check
- ☐ Mainly check, with some ACH/EFT, wire and card
- ☐ Mainly ACH, with some wire, check and card
- ☐ Mainly card, with some check, ACH and wire
- ☐ Other, please explain
- ☐ Do not know

**1.3 How effective are your current processes and systems in meeting your accounts payable needs?**

- ☐ Extremely effective
- ☐ Very effective
- ☐ Somewhat effective

- ☐ Not very effective
- ☐ Not at all effective
- ☐ Do not know

**1.4 How effective are your current banking services in meeting your accounts payable needs?**

- ☐ Extremely effective
- ☐ Very effective
- ☐ Somewhat effective
- ☐ Not very effective
- ☐ Not at all effective
- ☐ Do not know

**1.5 What is your primary way of being paid by businesses? (Select all that apply)**

- ☐ Almost all paper check
- ☐ Mainly check, with some ACH/EFT, wire and card
- ☐ Mainly ACH, with some wire, check and card
- ☐ Mainly card, with some check, ACH and wire
- ☐ Other, please explain
- ☐ Do not know

**1.6 How effective are your current processes and systems in meeting your accounts receivable needs?**

- ☐ Extremely effective
- ☐ Very effective
- ☐ Somewhat effective
- ☐ Not very effective
- ☐ Not at all effective
- ☐ Do not know

**1.7 How effective are your current banking services in meeting your accounts receivable needs?**

- ☐ Extremely effective
- ☐ Very effective
- ☐ Somewhat effective
- ☐ Not very effective
- ☐ Not at all effective
- ☐ Do not know

Next, we would like to assess your main concerns and interests about payment processing.

**1.10 Which one of these statements best describes your organization's interest in making and receiving more electronic payments?**

- ☐ **HIGH PRIORITY** and we regularly support initiatives to increase our use of electronic payments
- ☐ **HIGH PRIORITY** but we rely on our bank and vendors to support initiatives to increase our use of electronic payments
- ☐ **MODERATE PRIORITY** and we support select initiatives to increase our use of electronic payments
- ☐ **MODERATE PRIORITY** but we rely on our bank and vendors to enable more use of electronic payments
- ☐ **LOWER PRIORITY** but we hope that others are pursuing initiatives to increase electronic payments use
- ☐ **LOWER PRIORITY** as we are satisfied with our current level of use of electronic payments
- ☐ Other
- ☐ Do not know

**1.11 Which one of these statements best describes your organization's interest in automating the exchange and reconciliation of payment remittance data, that is, information exchanged that explains what a payment is for?**

- ☐ **HIGH PRIORITY** and we regularly support initiatives to increase our use of automated exchange and reconciliation of remittance data
- ☐ **HIGH PRIORITY** but we rely on our bank and vendors to support initiatives to increase our use of automated exchange and reconciliation of remittance data
- ☐ **MODERATE PRIORITY** and we support select initiatives to increase our use of automated exchange and reconciliation of remittance data
- ☐ **MODERATE PRIORITY** but we rely on our bank and vendors to enable more use of automated exchange and reconciliation of remittance data
- ☐ **LOWER PRIORITY** but we hope that others are pursuing initiatives to increase the use of automated exchange and reconciliation of remittance data
- ☐ **LOWER PRIORITY** as we are satisfied with our current level of use of automated exchange and reconciliation of remittance data
- ☐ Other
- ☐ Do not know

**1.12 Please identify up to FIVE of the top pain points/barriers for increasing usage of electronic payments by your organization from among the 13 items listed below. Use includes making and receiving payments. Electronic payments include automated clearing house (ACH or ACH/EFT) payments, card payments and wire transfer payments.**

- ☐ The paper processes we have in place work well, so we do not want to automate them
- ☐ Electronic payments will cost us more (e.g. fees)
- ☐ We are concerned about the risk of fraud with electronic payments
- ☐ Using more electronic payments is not a priority for senior management
- ☐ We do not want to share our bank account information with our customers
- ☐ We do not want to lose check float
- ☐ It is difficult to convince our customers and/or suppliers to send or receive payments electronically
- ☐ We do not have easy access to trading partner bank and account number information
- ☐ It is difficult to verify that an electronic payment is received by the correct account owner
- ☐ Customers/suppliers cannot accept or receive electronic remittance information from us so we prefer not to make an electronic payment
- ☐ We do not have the internal IT resources we need to support sending or receiving more payments electronically
- ☐ Our back office systems (A/R or A/P or ERP) do not integrate easily with electronic payments
- ☐ Our bank does not provide us with the services we need to use more electronic payments

**1.13 Please note any additional barriers to using more electronic payments that are significant to your organization.**

**1.14 Which barrier is the most critical and why?**

**1.15 Please identify up to FIVE of the top “pain points” that your organization experiences with processing remittance information from among the 12 items listed below.**

- ☐ Staff time and cost associated with entering remittance data into our receivables/accounting system
- ☐ Handling errors that arise from our manual remittance processes
- ☐ Delays in collecting funds due to our paper based remittance processing
- ☐ Data elements we need are missing in electronic remittance files we receive so we cannot process receivables efficiently
- ☐ Electronic remittance files we receive come in different formats so we cannot process receivables efficiently
- ☐ Our back office systems do not support automated matching of electronic remittance and payment data
- ☐ We do not share common business practices with most of our customers/suppliers for remittance data, which limits our ability to automate these processes.
- ☐ We do not have the internal IT resources we need to support automating more of our remittance processing
- ☐ Automating the processing of our remittance information is not a priority for senior management
- ☐ Our back office systems (A/R or A/P or ERP) cannot accept or generate electronic remittance information
- ☐ Our current remittance processes work well so there is no need to change
- ☐ Our bank does not provide us with the services we need to make our remittance processing more electronic and automated.

**1.16 Please note any additional “pain points” and barriers to improve the processing of remittance information that are important to your organization.**

**1.17 Which pain point is the most critical and why?**

Next we have a few questions about your organization’s current practices for sending, receiving, and processing remittance data.

**2.1 Do you receive remittance information directly and separate from the payment transaction from some of your trading partners?**

- ☐ Yes
- ☐ No
- ☐ Do not know

**2.2 How do you receive the remittance information that you receive directly (separate from the payment) from your trading partners? (Check all that apply)**

- ☐ In an electronic file that is reconciled automatically (no manual intervention needed) with our A/R or accounting system.
- ☐ As a document via email or fax or paper with remittance data that needs to be re-keyed into our A/R or accounting system
- ☐ Remittance information is obtained through a portal or network, such as Ariba or Sungard
- ☐ We receive remittance information by some other method (please explain)
- ☐ Do not know



**2.3 What does your bank (or payment provider) provide you for remittance information that is carried with the electronic payment that you receive? (Check all that apply)**

- ☐ We do not receive any remittance information from our bank or payment provider that is carried in an electronic payment.
- ☐ An electronic file in a standard ACH format that we input manually to our A/R or accounting system
- ☐ Information in a BAI2 (or BTRS) file
- ☐ An EDI data file in a format that can be reconciled automatically with our A/R or accounting system
- ☐ Remittance data in some type of document form (via email, fax, or paper) that needs to be keyed into our A/R or accounting system
- ☐ Remittance information provided by some other method (please explain)
- ☐ Do not know

In November 2011, the wire payment systems implemented a new capability to include remittance information with the payment. The new capability, ERI, Extended Remittance Information, allows businesses or their banks to include up to 9,000 characters of remittance information along with the wire transfer order.

**2.4 Which of the following best describes your organization with regard to this new ERI format for wires?**

- ☐ We are interested in getting started with this in the next 12 months
- ☐ We are interested in getting started with this in the next 24 months
- ☐ We have heard about this previously, but we need to further review our next steps
- ☐ We have heard about this previously, but we do not have enough information to decide on our next steps
- ☐ We have not heard about this previously
- ☐ We are not interested in the new ERI. Please explain why.
- ☐ Do not know

In this next section, we will describe some potential solutions that could be developed to help businesses improve payment and remittance processing and move closer to straight through processing (the automatic processing and reconciliation of corporate payments and remittance information) and will ask you for your feedback on each of the solutions.

**Potential Solution #1- Educational Opportunities**

|                   | Educational Opportunities  |
|-------------------|--|
| Description       | Provide education to businesses on making & receiving electronic payments, on exchanging electronic remittance information and on reconciling the two  |
| Problem addressed | Businesses lack the information and education they need about the steps to take to increase their use of electronic payments & the exchange of automated remittance information due to a lack of information |

**3.1 Which of the following groups need to better understand how to make and receive electronic payments?**

- ☐ Employees in our organization

- ☐ Our customers
- ☐ Our suppliers
- ☐ Other, please explain
- ☐ None

**3.2 Which of the following groups need to better understand the automated exchange of remittance information?**

- ☐ Employees in our organization
- ☐ Our customers
- ☐ Our suppliers
- ☐ Other, please explain
- ☐ None

**3.3 Please select the top three educational topics that would help you most to adopt more electronic payments and automated remittance information.**

- ☐ Choosing the right electronic payment (how to send, formats to use, costs & benefits)
- ☐ Best practices for implementing ACH payments
- ☐ Understanding how to use the EDI 820 format / STP 820 format
- ☐ Best practices for reconciling ACH payments and remittance information
- ☐ Best practices for implementing a commercial card program (e.g., P-card)
- ☐ Best practices for reconciling commercial card (e.g., P-card) payments and remittance information
- ☐ Using the new extended remittance information data in wire payments
- ☐ Best practices for reconciling wire payments and remittance information
- ☐ Tools to help us work better with our customers so that they will pay us electronically
- ☐ Tools to help us work better with our suppliers so that they will accept electronic payments
- ☐ How to work with our bank to make the most of electronic payments and remittance data exchange

**3.4 What other educational topics are of great interest to you?**

**3.5 How important is additional education for making and receiving electronic payments and exchanging automated remittance information?**

- ☐ Critical to have now, and willing to dedicate our time for development
- ☐ Important to have
- ☐ Nice to have, but not important
- ☐ Not needed, we already know what is necessary
- ☐ Do not know

**Potential Solution #2 - Secure Trading Partner (Buyer/Seller) Reference Directory**

|                   |   |
|-------------------|---|
|                   | Secure Trading Partner (Buyer/Seller) Reference Directory   |
| Description       | A secure, non-proprietary electronic directory that provides buyers & suppliers with information needed to exchange electronic payments & remittance data.  |
| Problem addressed | Lack of ready, online access to the correct banking and payment information needed to process payments and remittance data electronically   |
| Basic features    | The directory provides key information (e.g., payment type preferences, bank account information and remittance data and formats) that buyers need to send electronic payments and remittance data correctly to sellers/suppliers. The directory will allow suppliers to securely publish their electronic payment details and will |

**4.1 In order to receive payments more easily, how important is it for your organization to securely publish your bank routing and account numbers so buyers can look this information up online?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Not very important
- ☐ Not at all important
- ☐ Do not know

**4.2 In order to receive electronic payments more easily, how important is it for your organization to securely publish your remittance data requirements?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Not very important
- ☐ Not at all important
- ☐ Do not know

**4.3 In order to make electronic payments more easily, how important is it for your organization to be able to look up supplier bank routing and account numbers in a secure directory?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Not very important
- ☐ Not at all important
- ☐ Do not know

**4.4 In order to make electronic payments more easily, how important is it for your organization to be able to look up your supplier remittance data requirements in a secure directory?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Not very important
- ☐ Not at all important
- ☐ Do not know

**4.5 How important is having a Secure Trading Partner Reference Directory, as described above, to help your organization exchange more electronic payments and remittance data?**

- ☐ Critical to have soon, even if we had to pay a reasonable fee to use
- ☐ Important to have
- ☐ Nice to have, but not important
- ☐ Not needed, already use a service like this today
- ☐ Not needed, this is not a problem for us
- ☐ Do not know

**Potential Solution #3 - Universal Remittance Warehouse**

|                   | Universal Remittance Warehouse  |
|-------------------|---|
| Description       | A universal remittance warehouse allows any business to deliver/store remittance information in a database and securely access it as needed. The warehouse supports any payment method and remittance type/format.        |
| Problem addressed | Businesses need to be able to store and/or retrieve remittance information from a non-proprietary, widely available, and secure online database.  |
| Basic features    | Unlike existing remittance repositories that are vendor specific, the universal remittance warehouse is open to any registered business that wants to use it, regardless of remittance types/formats or vendors they use. |

**5.1 Do you currently use some type of Remittance Warehouse to obtain remittance data?**

- ☐ Yes
- ☐ No, it is not offered
- ☐ No, we are not interested
- ☐ Do not know

**5.2 How do you download the data stored in the Remittance Warehouse?**

- ☐ Electronically download

- ☐ Need to manually rekey
- ☐ Other, please explain
- ☐ Do not know

**5.3 Do you have sufficient remittance information in the Remittance Warehouse to post and reconcile payments received?**

- ☐ Yes
- ☐ No
- ☐ Do not know

**5.4 What additional information is needed?**

**5.5 How important is having a Universal Remittance Warehouse, as described above, to help your organization to exchange more electronic payments and remittance data?**

- ☐ Critical to have soon even if I had to pay a reasonable fee to use
- ☐ Important to have
- ☐ Nice to have, but not important
- ☐ Not needed, we already use a service like this today
- ☐ Not needed, this issue is not a problem for us
- ☐ Do not know

**Potential Solution #4-Common Business Practices**

|                   | Common Business Practices and Processes to Reconcile Payments and Remittance Data  |
|-------------------|--|
| Description       | Develop and adopt common “best” practices and processes that all types of businesses can use to reconcile existing payments and remittance information   |
| Problem addressed | Different organizations have developed unique business processes, making it hard to automate the reconciliation of payment and remittance data, even when “standards” are used.  |
| Basic features    | Business practitioners from diverse industries and sizes of businesses will work together to develop a set of business practices and processes for reconciling payments and remittance information more easily. For example, businesses would agree on the set of discount and adjustment codes they would commonly use. |

**7.1 Do all of your suppliers and/or customers who use the EDI 820/STP 820 remittance format use it in a standard way?**

- ☐ Yes
- ☐ No

☐ Not applicable

☐ Do not know

**7.2 Is this a problem for you?**

☐ Yes, please explain

☐ No

☐ Do not know

**7.3 Do all your suppliers and/or customers use the same set of discount and adjustment codes?**

☐ Yes

☐ No

☐ Do not know

**7.4 Is this a problem for you?**

☐ Yes, please explain

☐ No

☐ Do not know

**7.5 Please describe any other non-standard business processes that make it harder to automatically reconcile electronic payments and remittance information.**

**7.6 How important is having more common business practices to use when processing payments and remittance data, as described above, to help your organization exchange more electronic payments and remittance data?**

☐ Critical to have now and we are willing to dedicate our time for development

☐ Important to have

☐ Nice to have, but not important

☐ Do not think different organizations can agree on common standards

☐ Not needed, all of our businesses are already standardized enough

☐ Not needed, this issue is not a problem for us

☐ Do not know

#### Potential Solution #5 Technology Vendor Solutions

|                   |  |
|-------------------|--|
|                   | Technology vendor solutions  |
| Description       | Work with technology vendors to enhance services to support electronic payments & remittance & automatic reconciliation. These services include improved automated solutions as well as making solutions more readily available and accessible |
| Problem addressed | Some commonly used A/P, A/R & ERP packages cannot generate or accept electronic payments, or automated remittance data formats currently in use. Some automated vendor solutions are not easy to use and implement.                            |

##### 8.1 Are automated vendor solutions that are in the marketplace readily available to your organization and easy to implement and use?

- ☐ Yes
- ☐ No
- ☐ Don't know

##### 8.2 Does the lack of available automated solutions make it harder for your organization to use more electronic payments and remittance information?

- ☐ Yes
- ☐ No
- ☐ Do not know

##### 8.3 Does your software system generate remittance information that can be sent to a supplier electronically?

- ☐ Yes
- ☐ No, please explain
- ☐ Do not know

##### 8.4 Does your software system accept electronic remittance information provided by your customer and support automated reconciliation with payments you receive?

- ☐ Yes
- ☐ No, please explain
- ☐ Do not know

##### 8.5 How often is manual intervention required to correct electronic remittance information that you receive?

- ☐ Always
- ☐ More than 50% of the time
- ☐ Between 25% and 49%
- ☐ Less than 25% of the time
- ☐ Almost never
- ☐ Don't know

**8.6 How important is having technology help your organization to exchange more electronic payments and remittance data?**

- ☐ Critical to have soon even if we have to pay a reasonable fee to use
- ☐ Important to have
- ☐ Nice to have, but not important
- ☐ Not needed, already in use today
- ☐ Not needed, this issue is not a problem for us
- ☐ Do not know

**8.7 How important is having technology vendors better integrate and translate to help you reconcile remittance data with payments?**

- ☐ Critical to have soon even if we have to pay a reasonable fee to use
- ☐ Important to have
- ☐ Nice to have, but not important
- ☐ Not needed, already in use today
- ☐ Not needed, this issue is not a problem for us
- ☐ Do not know

**8.8 Which of the following automated software solutions are currently being used by your organization? Please select all that apply.**

- ☐ BPCS
- ☐ C/LECT Cash Preprocessor
- ☐ Excel spreadsheet
- ☐ Forseva
- ☐ JD Edwards
- ☐ Microsoft-Great Plains Dynamics
- ☐ MYOB
- ☐ Online banking/bank portal
- ☐ Open Scan
- ☐ Oracle
- ☐ Peachtree
- ☐ PeopleSoft
- ☐ Quick Books
- ☐ SAGE
- ☐ SAP
- ☐ Sungard (e.g., Get Paid)
- ☐ Electronic Invoice Presentment and Payment solution (such as Direct Insite, Ariba EIPP, etc.)
- ☐ Other



The table below summarizes the five solutions we have presented in this survey.

|                          | <b>Concept 1 – Educational Opportunities</b>   | <b>Concept 2 – Secure Trading Partner (Buyer/Seller) Reference Directory</b>   | <b>Concept 3 – Universal Remittance Warehouse</b>   | <b>Concept 4 – Common Businesses Practices &amp; Processes to Reconcile Payments &amp; Remittance Data</b>   | <b>Concept 5 – Technology Vendor Solutions</b>   |
|--------------------------|--|--|---|--|--|
| <b>Description</b>       | Provide education to businesses on making & receiving electronic payments, on exchanging electronic remittance information and on reconciling the two  | A secure, non-proprietary electronic directory that provides buyers & suppliers with information needed to exchange electronic payments & remittance data. | A universal remittance warehouse allows any business to deliver/store remittance information in a database and securely access it as needed. This warehouse supports any payment method and remittance type/format. | Develop and adopt common “best” practices and processes that all types of businesses can use with existing payments and remittance data  | Work with technology vendors to support electronic payments & remittance & automatic reconciliation. These services include improved automated solutions as well as making solutions more readily available and accessible |
| <b>Problem addressed</b> | Businesses lack the information and education they need about the steps to take to increase their use of electronic payments & the exchange of automated remittance information due to a lack of information | Lack of ready, online access to the correct banking and payment information needed to process payments and remittance data electronically                  | Businesses need to be able to store and/or retrieve remittance information from a non-proprietary, widely available, and secure online database.  | Different organizations have developed unique business processes, making it hard to automate the reconciliation of payment and remittance data, even when “standards” are used | Some commonly used A/P, A/R & ERP packages cannot generate or accept automated remittance data formats currently in use  |

**9.1 Please rank the five potential solutions listed above in order of the most effective (number 1) to the least effective (number 5) in moving your organization closer to exchanging more electronic payments and remittance data?**

Education Opportunities  
Secure Trading Partner (Buyer/Seller) Reference Directory  
Universal Remittance Warehouse  
Common Business Practices & Processes to Reconcile Payments & Remittance Data  
Technology Vendor Solutions

**9.2 Please explain your choice, or add any additional comments.**

**9.5 How familiar are you with ISO 20022 (see list of definitions)?**

- ☐ Very familiar
- ☐ Somewhat familiar
- ☐ Not very familiar
- ☐ Not at all familiar

**9.6 How interested is your organization in being able to exchange remittance information in an ISO 2022 format?**

- ☐ Very interested
- ☐ Somewhat interested
- ☐ Not very interested
- ☐ Not at all interested
- ☐ Do not know

**9.3 How important do you think it is to have a new internationally recognized format in current technologies to help move your organization further toward electronic processing?**

- ☐ Critical to have
- ☐ Important to have
- ☐ Nice to have, but not important
- ☐ Not needed,
- ☐ Do not know

**9.4 Please add any comments or explanation about why you DO or DO NOT think a new format is needed.**

**9.8 If you would like to receive a copy of the survey results, please provide your contact information**

Name  
Title

Company name

Phone number

Email

**9.7 May the Remittance Coalition contact you in the future for additional feedback or to help improve some of the concepts above which may be important to your firm?**

☐ Yes. Please be sure to add your name, company name and phone number to the information above

☐ No