

Vendor Master Files: *The Key to Managing Payables Errors and Fraud*



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“The ability to learn faster than your competitors may be the only sustainable competitive advantage.”

— Arie de Geus



Vendor Master Files: The Key To Managing Payables Errors and Fraud

Richard B. Lanza, CPA, CFE, PMP

Cost Savings
Process Improvements
Prevent and Detect Fraud

Rich Lanza, CPA, CFE

President of Cash Recovery Partners, LLC



- ▶ Two decades of experience in audit technology and recovery auditing
- ▶ 20 years experience in ACL and Excel dashboards
- ▶ A key contributor to IIA's Global Technology Audit Guide "Fraud in an Automated World" and ISACA's 2011 whitepaper on data analysis.
- ▶ Received an award from the ACFE for outstanding achievement in the development of the IIA Research Paper "Proactively Detecting Fraud"
- ▶ Written over 75 articles for major audit and accounting publications
- ▶ Authored 13 publications and training courses in audit software
- ▶ Has found millions for many Fortune 100 companies and other entities (companies from \$30MM to \$30B)
- ▶ Created www.findmillions.net to assist companies in identifying recovery and prospective savings and www.auditsoftware.net / www.auditsoftwarevideos.com to improve audit software's usage



Learning Objectives

- **How to Implement Key Internal Controls to Prevent Errors and Fraud**
 - Simple Ways to Reduce Opportunities for Error and Fraud
 - Running Key Reports Regularly to Identify Fraud Exposures (Free List of Top Reports Included)
- **Fraud Detection Techniques: What You Can Do Today**
 - How to Adopt a Methodology for Vendor Name Entries
 - How to Proactively Detect Fraud Red Flags Using Reporting and Other Techniques
- **Top Report Techniques in Access and Excel to Eliminate Dormant Accounts**
 - How to Use Excel as Audit Software For Your Vendor Cleansing and Analysis Needs
 - Maximize External Data Sources to Improve Data Quality and Detect Wrongdoers
 - Improve Your Holistic View of Your Supplier Spend to Create a Perpetual Cash Machine for the Organization

What are the issues with vendor master files?



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Issues in Vendor Master Management

Too many active vendors
(with no activity)

Improper segregation
of duties

Difficult to understand
or improve spend
management

Vendors are confused
and may see
opportunities to take
advantage of the
company

Difficult to improve
payment terms

Duplicate vendors
representing parents
and subs, for different
companies, or just
mistakes = duplicate
pays

Invalid Tax IDs leading
to B notices

Lack of vendor
management increases
opportunity for **fraud**

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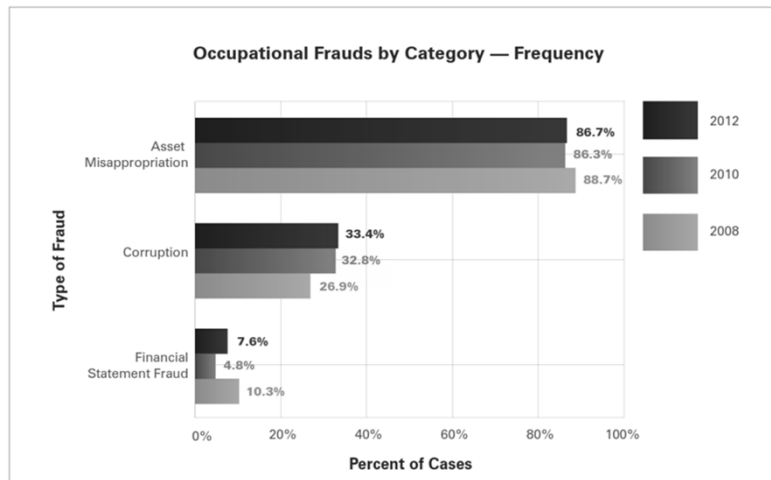
The vendor master file is a company's bellwether for protecting its cash.

An open vendor account that can be paid against is like an open wallet.



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Asset Misappropriation Tops The Charts



REPORT TO THE NATIONS
ON OCCUPATIONAL FRAUD AND ABUSE

2012 GLOBAL FRAUD STUDY

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Vendor Billing Fraud/Corruption Is #1 or #2 No Matter Where You Go

United States — 1,021 Cases			Asia — 298 Cases		
Scheme	Number of Cases	Percent of Cases	Scheme	Number of Cases	Percent of Cases
Billing	282	27.6%	Corruption	152	51.0%
Corruption	224	21.9%	Billing	56	18.8%
Check Tampering	173	16.9%	Non-Cash	55	18.5%
Skimming	165	16.2%	Expense Reimbursements	43	14.4%
Non-Cash	160	15.7%	Skimming	38	12.8%
Expense Reimbursements	154	15.1%	Cash on Hand	34	11.4%
Cash on Hand	117	11.5%	Cash Larceny	26	8.7%
Payroll	108	10.6%	Financial Statement Fraud	21	7.0%
Cash Larceny	98	9.6%	Check Tampering	21	7.0%
Financial Statement Fraud	44	4.3%	Payroll	12	4.0%
Register Disbursements	25	2.4%	Register Disbursements	6	2.0%

Europe — 157 Cases			Africa — 112 Cases		
Scheme	Number of Cases	Percent of Cases	Scheme	Number of Cases	Percent of Cases
Corruption	79	50.3%	Corruption	55	49.1%
Billing	41	26.1%	Billing	38	33.9%
Non-Cash	31	19.7%	Non-Cash	24	21.4%
Expense Reimbursements	24	15.3%	Expense Reimbursements	19	17.0%
Cash on Hand	23	14.6%	Cash on Hand	16	14.3%

2010 REPORT TO THE NATIONS ON OCCUPATIONAL FRAUD AND ABUSE 8

Corruption By Industry

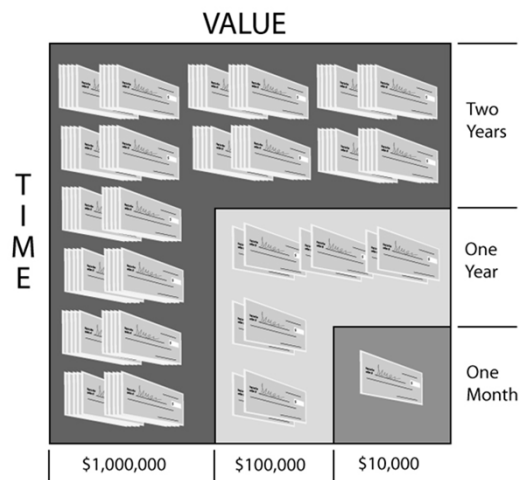
Corruption Cases by Industry			
Industry	Total Number of Cases	Number of Corruption Cases	Percent of Cases Involving Corruption
Mining	9	7	77.8%
Utilities	24	14	58.3%
Oil and Gas	44	22	50.0%
Technology	38	18	47.4%
Real Estate	28	12	42.9%
Agriculture, Forestry, Fishing and Hunting	20	8	40.0%
Wholesale Trade	27	10	37.0%
Banking and Financial Services	229	83	36.2%
Transportation and Warehousing	36	13	36.1%
Government and Public Administration	141	50	35.5%
Construction	47	16	34.0%
Manufacturing	139	47	33.8%
Services (Other)	48	16	33.3%
Health Care	92	28	30.4%
Telecommunications	43	13	30.2%
Services (Professional)	55	15	27.3%
Insurance	78	21	26.9%
Arts, Entertainment and Recreation	32	8	25.0%
Education	88	21	23.9%
Retail	83	19	22.9%
Religious, Charitable or Social Services	54	12	22.2%
Communications and Publishing	9	1	11.1%

REPORT TO THE NATIONS
ON OCCUPATIONAL FRAUD AND ABUSE

2012 GLOBAL FRAUD STUDY

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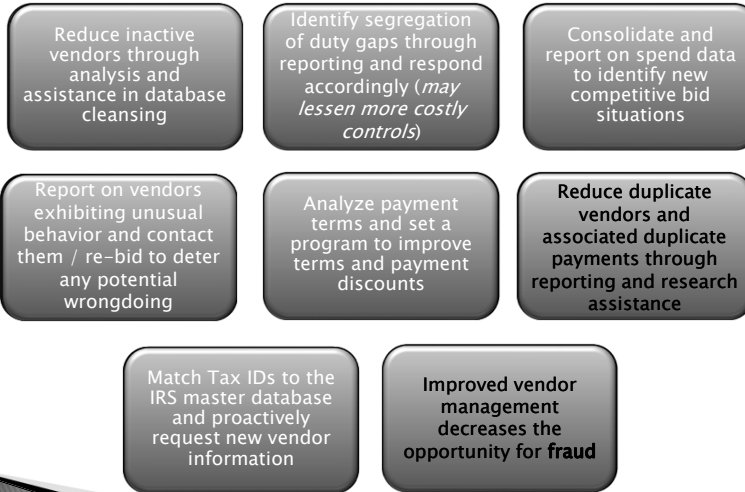
How Fraud Grows Over Time



What are some solutions for vendor errors and fraud?



Solutions in Vendor Master Management



Technology Components Include:

-
- Vendor Duplication Testing
 - Vendor Duplicate Payment Testing
 - Vendor Terms Analysis
 - Inactive or Incomplete Vendors
 - Employee to Vendor Matching
 - Assess 1099 Exposure/Assist in Cleanup Effort
 - Relate to External Databases (SSN Death Master, IRS TIN Matching Service, EPLS List, World Compliance Lists, and OFAC List)
 - Complete a Vendor Fraud / FCPA Analysis (Scoring)
 - Cost Savings Opportunity Analysis
-

Using Excel as an Audit Software

Free whitepaper by Rich Lanza

<http://auditsoftware.net/excel-use.html>



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Vendor Duplication Testing

- ▶ Duplicate 1st 15 Chars of Address and Zip Code
 - Numbers in the address or characters in the address
- ▶ Duplicate 1st 8 Chars of Vendor Name
- ▶ Duplicate TIN Number
- ▶ Duplicate Phone Number
- ▶ Duplicate Address and Different Supplier Name
- ▶ Fuzzy matching (Levenshtein)
 - Can be done in ActiveData or other audit software products



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Duplicate Payment Example

- ▶ Run 12 – 15 variant reports
 - Supplier, invoice number, invoice date, and amount
 - Numbers in invoice number
 - Absolute value of amount
- ▶ Prioritize the duplicate items and remove them from less priority versions
- ▶ Remove items based on debit memos or voided payments
 - Filter voids and use VLOOKUP on listing of debit memos
- ▶ Score based on knowledge of that vendor from other company audits or other



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Options for Duplicate Testing

- ▶ Excel Conditional Formatting
- ▶ To combine fields use & character:
 - A1 & " " & B1 & " " & C1

InvoiceNo	InvoiceDate	PaymentDate	CustomerNo	SalesPerson	Product
20000	1/1/2008	3/5/2008	10220	8	
20001	1/1/2008	2/9/2008	10491	4	
20002	1/1/2008	2/22/2008	10704	3	
20003	1/1/2008	2/9/2008	10430	5	
20004	1/1/2008	2/28/2008	10841	17	
20005	1/1/2008	2/24/2008	10777	1	
20006	1/1/2008	2/5/2008	10653	19	
20007	1/1/2008	2/27/2008	10413	12	
20008	1/1/2008	1/23/2008	10654	12	
20009	1/1/2008	1/26/2008	10390	1	
20010	1/1/2008	2/21/2008	10439	19	
20010	1/2/2008	2/6/2008	10439	99	
20012	1/2/2008	1/30/2008	10919	11	
20013	1/2/2008	2/19/2008	10600	8	
20014	1/2/2008	3/1/2008	10511	19	
20015	1/2/2008	2/17/2008	10353	17	
20016	1/2/2008	2/1/2008	10792	21	
20017	1/2/2008	2/22/2008	10516	7	
20018	1/2/2008	2/7/2008	10411	11	
20019	1/2/2008	1/26/2008	10004	4	
20020	1/2/2008	2/17/2008	10283	27	

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
Vendor Data Normalization Steps

- ▶ Develop Lookup List

	A	B
1	Add1	Add2
31	CO	Company
32	INC	Incorporated
33	CORP	Corporation
34	P.C.	PC
35	LLC	Limited Liability Company
36	ALY	Alley
37	AVE	Avenue
38	BND	Bend
39	BLF	Bluff
40	BLVD	Boulevard

Vendor Data Normalization Steps

- ▶ Data > Text to Columns

F	G	H	I	J
	SPLIT ADDRESS			
Address	Address1	Address2	Address3	Address4
3023 W. Olive Drive	3023	W.	Olive	Drive
787 Everglades Pl	787	Everglades	Pl	
5483 Duke Drive	5483	Duke	Drive	
5676 Co. Road 102	5676	Co.	Road	102

Vendor Data Normalization Steps

- ▶ Lookup Values To Lookup List

G3 =VLOOKUP('1 BaseData'!G3,LookupList!\$A:\$B,2,FALSE)

	A	B	C	D	E	F	G	H	I	J
1	DATA FROM BASE DATA						CONVERSIONS			
2	Number	Name	City	State	Zip	Address	Address1	Address2	Address3	Address4
3	10023	Edward Fu	Oromocto	ON	10023	3023 W. Olive Drive	#N/A	West	#N/A	#N/A
4	10029	Jaquez Be	Caronport	YT	10029	787 Everglades Pl	#N/A	#N/A	Place	#N/A
5	10030	Christa Ne	Byng Inlet	NT	10030	5483 Duke Drive	#N/A	#N/A	#N/A	#N/A
6	10031	Kole Long	Amherstvie	NB	10031	5676 Co. Road 102	#N/A	CO	#N/A	#N/A

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Other Options for Duplicate Testing

- ▶ Access
 - www.microsoft.com
- ▶ ActiveData for Excel
 - <http://www.informationactive.com/asv>
- ▶ ACL Software
 - www.acl.com
- ▶ IDEA Software
 - www.caseware.com
- ▶ WizSame
 - www.wizsoft.com

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Are Your Vendors Real? IRS TIN Matching Program

- ▶ Validates U.S. Tax Identification Numbers
- ▶ Can submit up to 100,000 TIN submissions at a time
- ▶ Make sure all punctuation is removed
- ▶ See <http://www.irs.gov/taxpros/> and enter "TIN matching program" in the search box



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Is Your Organization Working With Terrorists?

Address <http://www.ustreas.gov/offices/enforcement/ofac/>

UNITED STATES DEPARTMENT OF THE TREASURY

HOME CONTACT US SITE INDEX FAQ FOIA ESPAÑOL ACCESSIBILITY PRIVACY & LEGAL

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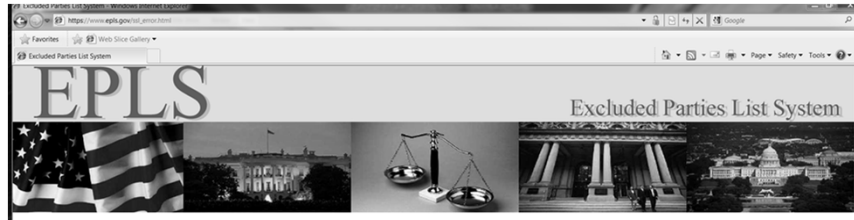
ANSWERS TO YOUR QUESTIONS

Microsoft Excel - SON.CSV

A	B	C	D	E	F	G	H	I
1	10 ABASTECEDORA NAVAL Y INDUSTRIAL	CUBA	-0	-0	-0	-0	-0	-0
2	12 ANDELINA, Mary de Jesus	individual	CUBA	-0	-0	-0	-0	-0
3	22 ACECHILLY	vessel	CUBA	-0	-0	-0	-0	-0
4	24 ACEFROSTY	individual	CUBA	-0	-0	-0	-0	-0
5	25 ACEFROSTY SHIPPING CO., LTD.	CUBA	-0	-0	-0	-0	-0	-0
6	36 AEROCARIBBEAN AIRLINES	-0	CUBA	-0	-0	-0	-0	-0
7	39 AEROTARI ECUATIVO, S.A.	-0	CUBA	-0	-0	-0	-0	-0
8	41 AGENCIA DE VIAJES GUAMA	-0	CUBA	-0	-0	-0	-0	-0
9	66 AGUIAR, Paul	individual	CUBA	Director, B	-0	-0	-0	-0
10	137 ALEGRIA DE PIDO	vessel	CUBA	-0	-0	-0	-0	-0
11	150 ALGARDI, Carlo Giovanni	individual	CUBA	-0	-0	-0	-0	-0
12	159 ALVAREZ ACURRE, Manuel	individual	CUBA	-0	-0	-0	-0	-0
13	166 AMERICAN AIR WAYS CHARTERS, INC.	-0	CUBA	-0	-0	-0	-0	-0
14	172 ANGELINI, Alejandro Abood	individual	CUBA	-0	-0	-0	-0	-0

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Is Your Organization Working With Banned Companies?

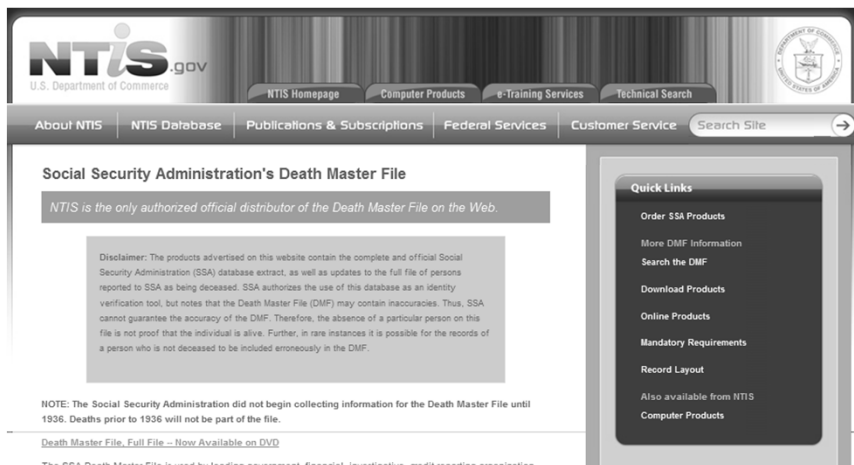


EPLS is the excluded party list service of the U.S. Government

WWW.EPLS.GOV

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SSN – Death File



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Basic Business Information

- ▶ Do a quick check on www.411.com or Google
- ▶ Research them online with additional tools
 - See BRB Publications (www.brbpub.com)
- ▶ Check any state public listings or use additional fee-based services for vendor information

Employee/OFAC/EPLS to Vendor Testing

- ▶ Work on address, bank account, and TIN more so than employee name
- ▶ Split numbers from words in the address
 - Use Text to Columns
- ▶ Match on first characters in the address words or address numbers fields
 - Use the LEFT() function
 - Vlookup - =VLOOKUP(A2,\$N\$15:\$Q\$59,2,FALSE)

The Power of VLookup()

VLOOKUP

Lookup_value: B2 = "2111 S ELM-EUGENE"

Table_array: 'Employee Address'!\$A\$2:\$A\$100 = {"2111 COLLEGE DR"

Col_index_num: 1 = 1

Range_lookup: FALSE = FALSE

Searches for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order.

Range_lookup is a logical value: to find the closest match in the first column (sorted in ascending order) = TRUE or omitted; find an exact match = FALSE.

Formula result =

OK Cancel

Matching vendor to employee addresses

	A	B	C	D	E
1	VENDOR_NUMBER	VENDOR ADDRESS	TIN NUMBER	LEFT (8)	MATCH
2	1006943	2111 S ELM-EUGENE STREET	10967588	2111 S E	#N/A
3	1020139	2121 WEST MAIN ST	21101682	2121 WES	#N/A
4	1041563	213 HENSCHER LANE	40877206	213 HENS	#N/A
5	1041975	214 3RD AVE NE	40945638	214 3RD	#N/A
6	1042256	214 PINE ST	60438618	214 PINE	214 PINE

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How to Catch Kickback Fraud

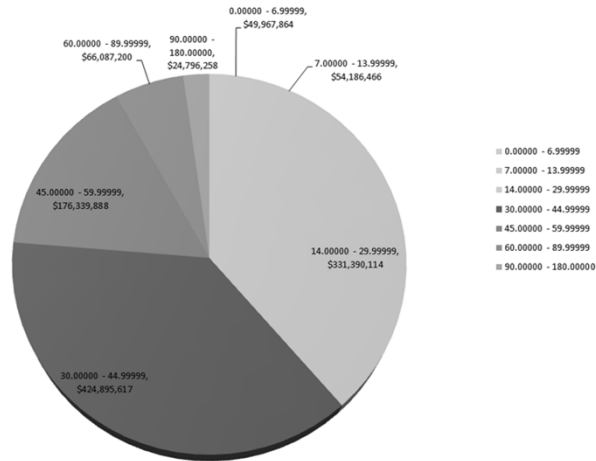
- Identify major gaps between contracted and market price
- Perform independent RFP process
- Ensure an appropriate deal is struck which limits the potential for overspending on price and quantity (going forward)



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Values By Weighted DPO

Values By Weighted DPO



Profit Opportunities

- ▶ Accounts Payable
- ▶ Audit Fee Benchmarking
- ▶ Advertising Agency
- ▶ Document Fleet
- ▶ Freight
- ▶ Health Benefits
- ▶ Lease
- ▶ Media
- ▶ Order to Cash
- Proactive Fraud Detection
- Project Fraud
- Real Estate Depreciation
- Sales & Use Tax / VAT / R&D tax
- Strategic Sourcing
- Telecom
- Travel and Entertainment
- Utilities



S-Ox Benefits

- ▶ Accurate financial statement reporting
 - Identifies hidden assets
 - Corrects overstated expenses
- ▶ Detects fraud and deters fraudsters
 - Think of recovery projects as a **proactive whistle blowing hotline** to detect fraud (mostly with vendors)
 - Remember that employees and vendors will ask **"Will I get caught?"** so if no one is looking.....fraud has more of a chance to happen.
 - Collusion is the leading method for almost all of the headline frauds and vendor audits / strategic sourcing reduces the "spread" to make vendor conflicts less attractive
- ▶ Quantifies the need for improvement and focus in future year audits



Cost Recovery Opportunity Analysis

- ▶ Expenses for Analysis
 - Primarily SG&A
 - Cost of goods sold (i.e., freight)
- ▶ Data Files
 - General Ledger (trial balance)
 - A/P Invoice Detail Distribution
 - Purchase Orders
 - Pricing List



Cost Recovery Opportunity Tests

▶ A/P and G/L Review Factors

- Accounts that are sole sourced
- Accounts that have too many vendors
- Categories that map to the “recovery list”
- Assess to industry cost category benchmark
- Top 100 vendors
- Trend analysis over time
- Trend analysis by vendor (scatter graph)



▶ Purchase Order / Price List

- Match to invoice payments to assess price differences
- Strategic sourcing vendor review

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Getting Started: Pivot to New Sheet

Payables Sample.xls [Compatibility Mode] - Microsoft Excel

Home Insert Page Layout Formulas Data Review View

PivotTable Table Picture Clip Art Shapes SmartArt Column Line Pie Bar Area Scatter Other Charts Hyperlink Text Box Header WordArt Signature Object Symbol

Tables Illustrations Charts Links Text & Footer Line

C6 4699

1 VENDOR NUMBER INVOICE AMOUNT INVOICE NUMBER INVOICE DATE CHECK DATE ENTERED DATE CHECK NUMBER PO NUMBER

Create PivotTable

Choose the data that you want to analyze

Select a table or range

Table/Range: Invoices paid!\$A\$1:\$1\$4026

Use an external data source

Choose Connection...

Connection name:

Choose where you want the PivotTable report to be placed

New Worksheet

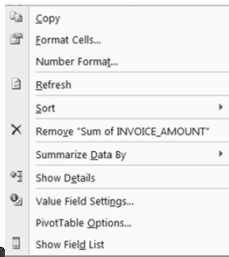
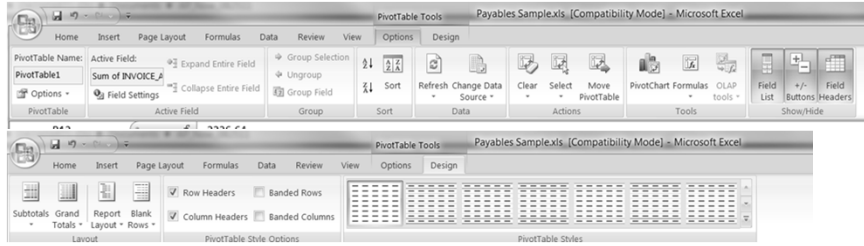
Existing Worksheet

Location:

OK Cancel

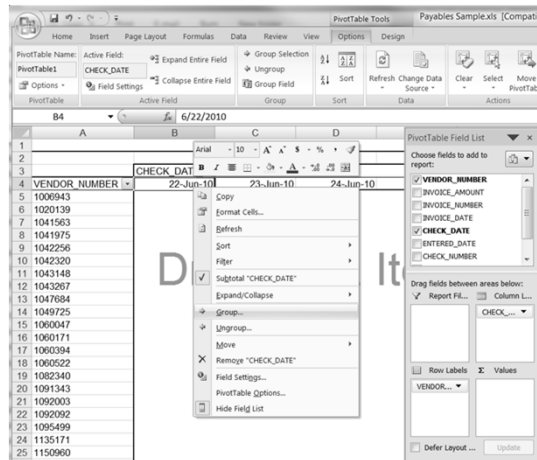
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Getting Around The Pivot



- Right click on the amount fields (data part) to see field list and edit various Pivot Table options
- Select from the Top Ribbon Menu the Options and Design menus for Pivot Tables (Excel creates them when a Pivot Table is created)

Grouping Date Ranges



Sample Fraud Detection Reports

Violating Statistical Patterns

- ▶ Vendor values that are deemed exceptional after applying regression and standard deviation calculations
- ▶ Invoice amount values themselves that appear unusual based on the number's digits
- ▶ Vendors who have a large percentage of rounded-amount invoices.

Conflicting External Data

- ▶ Tax identification numbers matching death master lists held by the Social Security Administration
- ▶ Vendor addresses not listed in Google Maps
- ▶ Google Maps shows vendor (business) address to be an apartment or other personal residence

Timing Differences

- ▶ Vendors who are consistently paid quickly, typically in less than 10 days
- ▶ Checks cut on a weekend or after-hours based on time stamps
- ▶ Unusual increasing or decreasing trends across business quarters

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Transactional Score



A single score is given to each transaction based on its severity (number of attributes it meets)



Scores are summarized by enterer, vendor, and department (buyer)



Scattergraphs are completed of the results by:

- Enterer
- Vendor
- Department (buyer)

...focusing on severity/volume and differences in these variables

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The Sampling “Problem” Bottom Line Numbers

- ▶ Modern tests (round numbers, duplicates, missing fields) identify thousands of ‘suspicious’ transactions, usually about 1 in 5 of all transactions get a ‘red flag’
- ▶ Historically at least 0.02 – 0.03 % of all transactions have real problems, such as a recoverable over-payment
- ▶ So roughly $0.00025 / 0.2 = 0.00125$ or 1 in 800 ‘red flags’ lead to a real problem.

Imagine throwing a random dart at 800 balloons hoping to hit the right one.

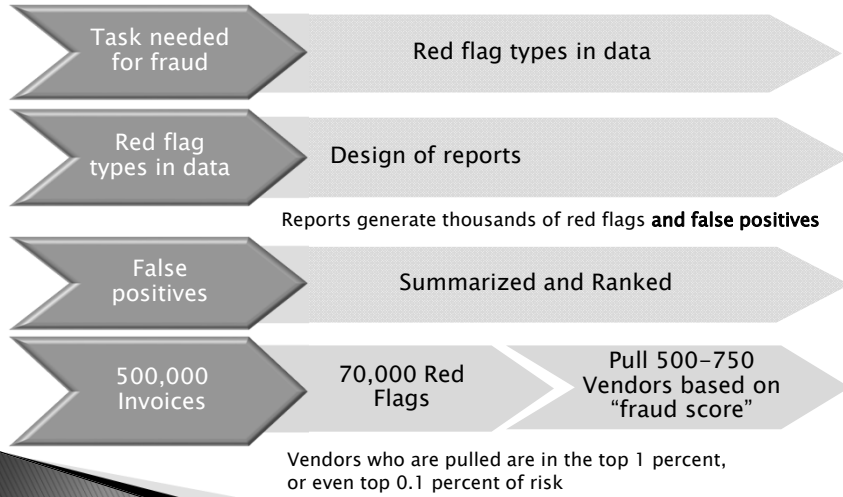
Summaries on Various Perspectives



WHO: Vendors, Employees, Customers
WHERE: The Accounting Records
WHEN: Time
WHAT: Dollar Magnitude / Size / Growth Rate
WHY: The Likelihood Of Occurrence Based On The Red Flags.

Identify crossover between the top scored vendor, time, and place of fraud based on the combined fraud risk score

The Fraud Detection Methodology



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The Charts – BatchGeo.com

▸ Fraud Risk By Area



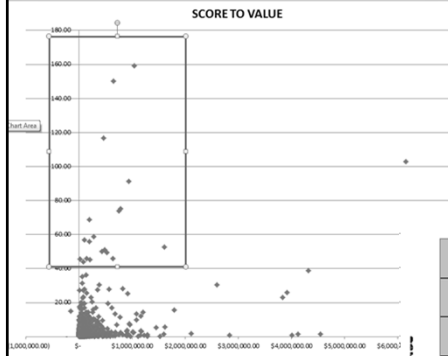
▸ Top Fraud Risks by Area



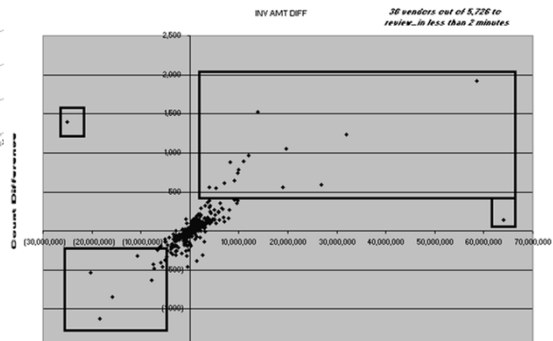
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The Charts - Fraud Risk To Value

▸ Fraud Risk To Value



▸ Fraud Risk Over Two Periods



Notes

