Using Excel, the Most Expensive Decision Companies Make
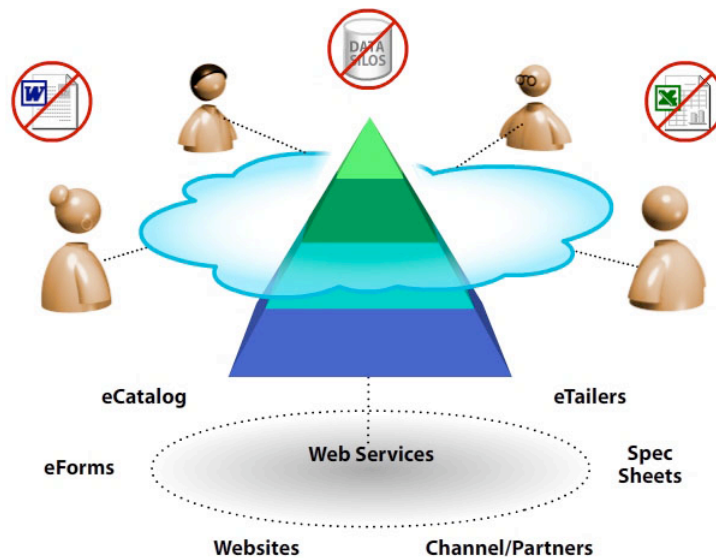
A SKUforce White Paper

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Microsoft Excel is ubiquitous in every organization, and the reasons are obvious. Excel is:

- Easy to learn.
- Available to nearly everyone.
- Powerful.
- A flexible tool for creating documents that can be exported to many different databases and systems.

In its heyday, Excel was the quickest tool to get the job done.

Designers needed to save reams of information about products. Product Managers and various other stakeholders captured data in Excel. Bills of Materials were created using Excel and sent to purchasing. Buyers used Excel to manage vendor costs. Logistics used Excel to log shipping variables. Distributors requesting information on products were sent the information in Excel format. Management used Excel checklists to collate important details. Sending Excel files back and forth became *the* quick and effective method of sharing important information.

Excel data sharing became increasingly sophisticated. Macros were incorporated to automate imports and calculations. Data was linked across multiple sheets. Lookup tables were created. Pivot tables were incorporated for even more powerful data manipulation.

Over time, Excel has become the standard, unquestioned tool for business users, and businesses have become Excel-dependent.

The Excel Conundrum

However, the world has evolved past the point where the benefits of Excel surpass the problem it creates: non-collaborative data silos.

A data silo is any information repository that is independent from other systems or data. Like a grain silo on a farm, data silos are good at storage. However, since they stand on their own, they are disconnected from other silos and it is difficult or impossible to analyze or report across data silos. Also, data silos are an impediment where users share data across departments and geographic locations. Content in a data silo must be extracted before it can be shared with other departments or stakeholders.

It is almost impossible to ensure the consistency and integrity of data stored in silos. In fact, simply keeping track of multiple versions of Excel documents and the discrepancies in the data they contain can be its own project.

Imagine just 25 data elements captured in 100 Excel documents. It is a time consuming, nearly impossible task to ensure that the data in each document is identical. Tasks that should be routine become monumental: determining which elements are missing, generating a report detailing missing items, or standardizing taxonomy (CA, Ca, Cal., Calif, and California for example).

Multiply that small example by the amount of data used in today's corporate marketplace and you have a sense of the magnitude of the problem.

Data silos create information gaps between departments, delays in completing projects, and delays getting new products to market. These delays directly affect sales and market share.

This is one reason why Excel falls short in a highly competitive environment. Today, data must be stored, accessed, and shared in real time with geographically dispersed suppliers, partners, customers, and departments (packaging, shipping, logistics, marketing, etc.).

However, because there is no central authority for verified product information, critical information is scattered throughout the company. Compounding the issue, different spreadsheets can easily contain conflicting data (such as weight, color, dimensions, etc.). For example, dimensions that should be entered as Height, Width, Depth, may be entered as Thickness, Width and Height. Not only is the sort order incorrect, but also the taxonomy is different.

There is another reason Excel falls short: businesses cannot rely exclusively on text-based data any more. They require a variety of data types: images, videos, rich text, documents, etc.—whatever best communicates their message to customers, buyers, warehouses, retailers, partners, etc.

The bottom line is: Excel simply cannot handle the complexity, variety, and collaboration requirements that have exploded in the past few years, and it wasn't meant to.

Informed consumers demand rich media (such as product videos, images, and specifications) before purchasing products without human interaction. Subject matter experts communicate their expertise in limited file formats (like Microsoft Word) that fail to capture the breadth of a company's knowledge. Rich media is isolated from other information, making it more difficult to collaborate and maintain consistency in the information supply chain.

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The True Cost of Excel

Today's reliance on Excel costs companies valuable time and money, because:

Despite all the hassles, all the headaches, and all the costs, dozens of the largest companies in the United States—some with billions of dollars in annual sales—continue to use Excel and similar manual processes as the predominate method for managing product-related information.

- Employees (in different departments and/or locations) manually enter information into multiple documents numerous times.

- Erroneous data (such as incorrect units of measure, misspellings, inconsistent messaging, etc.) is being entered into multiple documents numerous times.

- Excel documents that are supposed to contain identical data, in fact, contain different data. Which means that, for example, part descriptions vary for the same parts in different documents, marketing copy is inconsistent internally and externally, etc.

- Critical data stored in disparate Excel documents becomes stale data.

- Revision management is nearly impossible.

- Workflows are duplicated.

- The documents that external partners use are seriously out of date.

Seemingly minor data errors can cost thousands of dollars before being caught, because errors reaching production generally are 100 times more expensive than errors caught at the source. Once caught, resolving such disparities is expensive and time consuming. Someone has to hunt down the correct data and collect it. *Once collected, where does the new data reside, another Excel spreadsheet?*

Collaboration with Excel is difficult, slow and cumbersome. A document has to be authored, then distributed via email or network. Next, each collaborator makes changes to their version of the document and emails it. When things work well, someone enters the changes into a master document. Which means someone is able to retain control over the entire process and all the geographically dispersed collaborators. At best, this can take days or weeks.

However, more often than not, things do not go this well. More often, many versions of the same document not only remain in disparate locations, but also are distributed from each location. Thus, confusion spreads.

Smart businesses know that ensuring the accuracy and consistency of critical information, and improving collaboration are two ways to increase efficiency and productivity.

Co-authoring presents a variation on this scenario. Even with the best of intentions, when two people author the same document, often the data in the cells can be inconsistent. This can add time to the creation of the document and (once again) spread confusing data into the business.

Also, a company cannot audit the process by which an Excel document is created, distributed, edited by collaborators (and who those people are), with the result that multiple versions inevitably exist and are used in multiple locations. When something goes wrong, no one can trace the problem back to its source. Thus, the problem is never resolved and Excel chaos becomes an institutional habit.

Finally, data in Excel spreadsheets is accessible by nearly anyone that can double-click a document's icon. Thus, critical data (such as payroll and pricing data) can be vulnerable to unauthorized access. The only way to protect such data is through roles-based access management, but nothing like that exists at the document level.

Despite all the hassles, all the headaches, and all the costs, dozens of the largest companies in the United States—some with billions of dollars in annual sales—continue to use Excel and similar manual processes as the predominate method for managing product-related information. In fact, over 90% of the largest vendors use Excel to manage ever-changing information from suppliers and for gateway information within the company.

These hassles don't go away. They have to be dealt with, which means that these businesses can lose hundreds of hours of production per month, just sorting out their Excel data issues.

Two Approaches to Data Management and Collaboration

Smart businesses know that ensuring the accuracy and consistency of critical information, and improving collaboration are two ways to increase efficiency and productivity. These businesses also want to more effectively leverage the rich information formats (such as images and video) that the world demands.

By working and communicating more efficiently and effectively, businesses can not only stay competitive, but also increase market share. Yet, Excel-based processes, data silos, and the effects they create remain obstacles to more efficient, more effective business.

Conceptually, there are two approaches to helping businesses overcome these obstacles:

- Document-centric - any process or workflow that uses documents to enter, manage, and transmit data is document centric. Excel is the prime example of this.
- Data-centric – any process that uses database forms to enter, manage, and deliver information is data-centric. A web-based database is an example of this.

The Document-centric Approach
Most businesses are already accustomed to this approach. The document-centric approach requires a user to create and/or edit a document, release it, forward it, then save it to a server. Once saved, it is QA'd, corrected, and approved. Incorrect and incomplete data is corrected through email correspondence and/or

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conference calls. Often, multiple versions of the same document are saved on the same file server and/or in local machines.

The document-centric approach is inherently error-laden and time-consuming, and lacks accountability and tracking. It particularly fails when stakeholders are offshore, off-site, where there are many originators, where rich information is used and managed, and when collaboration between multiple stakeholders is required.

The Data-centric Approach

The data-centric approach replaces Excel spreadsheets and document-centric systems with a single global repository in which data is created, edited, stored, and from which it is uniformly broadcast. Ideally, users access the repository and collaborate via the Web, using simple, browser-based interfaces.

This approach enables all authorized stakeholders to collaborate seamlessly. Information stays in the central repository, where it is worked on and approved. This ensures that critical data moving through the company is consistent and all data-related processes move in a truly coordinated fashion.

The data-centric approach gives employees the ability to create and find anything quickly and collaboratively. Data residing in a central repository only needs to be corrected once, in the repository, before being communicated out to the organization. In this way, the repository becomes and remains the single source of organizational truth.

Thus, the data-centric approach reduces labor, ensures higher data quality and consistency, enables data governance, and has fewer or no gaps between steps and departments.

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The table below highlights the differences between these two approaches.

Process	Document Centric	Data Centric
Automation	Manual/Intensive	Automated
Quality	No validation	User defined Validation rules
Touch Points	Multiple	Single Touch Point
Search	Manual	Just like Google
Metrics/Reporting	Limited/no reporting	Unlimited Reporting. Visual Metrics
Reuse	Limited	Reaches top to bottom
Notification	Email/personal	Real time communication
Corrections	Conference calls	Online visibility
Processes	Multiple stages	Single step process
Usage	Single use	Extends across the enterprise
Security	ad-hoc	Controlled access
Sales Reach	Each channel managed manually	Automated multi-channel reach

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The data-centric approach is clearly superior in a fast paced, challenging enterprise environment full of metadata.

The Search for the Right Solution

When searching for a solution that will replace information silos, a company's landscape must be clear and appropriate. To do otherwise can lead to the wrong solution. And while the two solutions may cost the same upfront, the wrong solution will be far more expensive in the long term, because it will become the new problem. Defining the landscape will help a company ensure that the solution it selects will best meet its goal of overcoming the data silo problem.

Therefore, before beginning the search for a replacement solution, a company should:

- Define what data must be captured, by whom, and in what formats.
- Determine who originates critical business data and how long it takes to move that information forward.
- Determine who must have access to critical business data. This would include Internal stakeholders, extended partners, any system or process that requires highly accurate, validated data.
- Define who should have access to what information.
- Define what systems will be affected, what systems are to be fed, and the milestones to reducing the gaps between these systems.

Reviewing existing internal systems and the processes that have worked for years (despite duplicated information, triple entry, data nightmares, etc.) will help a company better understand how the right solution will help bring those processes together and make them more effective.

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The Right Solution

Once this information is known, the company should compare proposed solutions to these findings. The best solution will be the one that will best work with the established landscape, while providing the features that will help the company stay competitive now and in the future. The right solution will:

- Work the way you do and capture all of the specific attributes & images that drive your business across all functional groups

- Be web-based, which will ensure that all information is available in real time to everyone that needs it.

- Be data-centric, not document-centric.

- Be a global repository for ALL information.

- Ensures that first-time data quality will be high, with minimal errors.

- Effortlessly and rapidly replace Excel as a data-gathering and dissemination tool.

- Support all the product attributes and data types your company uses now and will use in the future.

- Be quick and easy to search, including contextual searches.

- Give high visibility to data, especially missing information & key data analysis.

- Be forms-based, so users can work using a familiar methodology, with familiar forms and data structures.

- Be able to handle images and documents (structured and unstructured information) as easily as text and numbers

- Leverage common data elements among products and SKUs, to reduce multiple entry points and the number of managed data elements.

- Support data governance in your organization. This will ensure that all data is accurate and instantly available, that users only see the data they are authorized to see, and that originators can effectively manage the data they originate.

- Enable both standardized and ad hoc reporting capabilities.

- Enable the originator of data (especially suppliers and service vendors) to enter data directly and collaborate via the Web.

- Deliver information accurately and automatically to third parties and downstream applications using xml and Web Services.

- Be extensible and adaptable for the future.

Thus, the ideal solution would replace Excel spreadsheets and all document-centric processes. It would consolidate existing information into a centralized, global repository that has an easy to use, easy to learn browser-based interface.

Finally, the biggest challenge to eliminating or reducing the reliance on Excel is Excel's familiarity. Thus, any replacement must be simple and straightforward to use, yet behave like a highly flexible in-house custom product. This will encourage rapid, widespread adoption and ensure that the company quickly meets its goal of sharing and enriching information.

Current Solutions

Many companies have launched at least one initiative to alleviate the negative effects that Excel and document-centric systems cause. Many have investigated and some have purchased solutions with alphabet soup abbreviations: PDM, ERP, PLM, PIM, WCM, CMS, EDI, GDSN, etc.

Reviewing existing internal systems and the processes that have worked for years (despite duplicated information, triple entry, data nightmares, etc.) will help a company better understand how the right solution will help bring those processes together and make them more effective.

However, none of these standard solutions entirely eliminate Excel/document-centric chaos. In fact, most solutions only address specific aspects of the problem or fail to capture the original intent of the Excel application

In addition, the above solutions require major upfront investment and long implementation times, usually 18 to 36 months. Customization options are limited. They are rigid systems, usually overkill, and built around inflexible data architectures that don't communicate with legacy systems, which means that the new system cannot use pre-existing data. In the end, there are no guarantees that the alphabet solutions will be flexible enough to accommodate most businesses.

The Ideal Solution

Thus, the ideal solution would replace Excel spreadsheets and all document-centric processes. It would consolidate existing information into a centralized, global repository that has an easy to use, easy to learn browser-based interface. This repository should be Web-accessible, enabling all authorized users to have real-time,

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any-time access to the central hub of collaboration. In this way, the ideal solution would remove the Excel bottleneck, streamline business processes, and enhance efficiency, by removing the clutter and chaos caused by Excel and document-centric systems.

Conclusion

For years, Excel has been the simplest technology to share information with suppliers, retailers, customers, and across departments. Ultimately, Excel was used for so many different purposes that it became the standard tool for manipulating and sharing many types of company information. However, these document-centric processes cause data nightmares and make collaboration very difficult.

To remain competitive an enterprise must have efficient, effective data management. To affect this, infrastructure and data must all be analyzed and brought together into a web-based environment that enriches a company's hierarchy of information in multiple ways. With one central place for all product related information, suppliers, manufacturers, distributors, and retailers will be able to collaborate closely. When the originator of data is the one who enters it into the system, data will have a higher level of quality right from the start.

Removing the data silos between departments can reduce Item Classification and New Product Introduction (NPI) cycles by weeks. A central repository will increase internal and external data quality and greatly reduce costly errors. Automating antiquated data delivery systems can accelerate marketing channels and kick start sales.

Thus, eliminating Excel and other document-centric systems for sharing information will make any company leaner and faster in getting products to market and will increase sales by providing prospects more of what they need to know.

About SKUforce Inc.

SKUforce Inc. is the leading provider of web-based, private clouds and collaborative Master Data Management solutions for managing suppliers, customers, brands, products and SKU's.

SKUforce is an exceptionally adaptive, agile and affordable Enterprise-class platform that can be applied to many different initiatives, including Multi Channel Marketing and Supplier Lifecycle Management. SKUforce efficiently streamlines and standardizes the lifecycle of information from cradle to grave, using an interface that is as easy to use as online banking.

For more information about SKUforce or our database web technology, visit www.skuforce.com, or please call us at (866) 443-2058.

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If you would like a complimentary discovery session, please call us directly at 866-443-2058, or complete the contact form on our web site.

Imagine an automatic data hierarchy of product content which includes series, product and SKU metadata, images and documents.