

RESEARCH REPORT

THE INCREASING IMPORTANCE OF USABILITY IN ENTERPRISE SOFTWARE

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EXECUTIVE SUMMARY

Enterprise business software as a product offering has matured to the point where functionality is available to accomplish most business tasks, and vertical industry specialization is becoming more commonplace. In the immediate to intermediate future, functionality will become commoditized, and the real differentiator between vendors and products will be the degree to which that functionality can be easily understood and used by workers throughout a company.

At IFS, we have tried to ensure usability by providing consistent navigation structures throughout our application suite, and allowing personalization of the way each user views and uses data. We realized, however, that a product as deep and multifaceted as IFS Applications could benefit from additional improvements in the area of usability. As we set out to become the leader in enterprise application usability, we wanted to collect primary research data from end users to make sure that our product enhancements would address the wants and needs of the market. While the strongest driver for our product development efforts come from interaction with our customers, we conducted a substantive international study of enterprise software users to corroborate and expand upon what our customers were telling us. After an initial pilot survey of IFS customers, we surveyed enterprise software users in manufacturing and other industrial settings in both hemispheres.

The most statistically significant findings of this global study were:

- A full 60 percent of respondents said their enterprise software was somewhat difficult, very difficult or almost impossible to use. Only 9 percent characterized their applications as very easy to use.
- Almost 65 percent of respondents said that usability was a primary or secondary factor in selecting their enterprise software.
- People define software usability in terms of how much a software tool makes it easier to do their job and the degree to which that tool can be immediately understood without a manual or training.
- By a substantial margin, people find Web applications easiest to use, followed by PC-based applications. We believe the preference for Web-based applications has to do with the fact that many Web applications are simplified enough to work through a number of Web browsers and are designed to be easily comprehensible to someone using them for the first time.
- Respondents expressed a strong desire for applications that aid in collaboration.
- Respondents want applications to increasingly tie in with online tools and a greater degree of personalization of their user experience

In the pages that follow, we will provide further analysis of this study, which reveals that people feel the need for more usable enterprise applications and details the specific usability improvements that the market will demand.

METHODOLOGY

In order to collect this data, we started in early 2007 with a pilot study of IFS customers.

We then conducted in early 2008 a parallel study in Scandinavia, the UK and North America, with a more extensive questionnaire employed in Scandinavia and North America. A total of 1,010 responses were collected through Web survey tools, with participation driven by email invitations to lists provided and administered by publishers of appropriate business-to-business periodicals.

The survey tool follows, and reflects the questions presented to IFS customers in Scandinavia, and then to non-customers in Scandinavia, the United Kingdom and North America. Most questions were common in all regions surveyed, with some additional questions asked in North America and Scandinavia but not the UK, and they are delineated in the report to follow.

Usability Survey—Phase Two

This survey should take no more than four minutes to complete, and will help us better understand what makes software products easy to use.

1. Which one of the following statements best defines “software usability” for you when it comes to your enterprise environment?
 - a) When I can use the product without having to read the manual.
 - b) It works like other products I am already using and familiar with.
 - c) The product is designed to fit with the way I work.
 - d) It’s when a product helps me do my job better and faster.
 - e) All of the above.

2. In your experience, which of the following do you believe is generally the most intuitive type of application to use?
 - a) Word processor
 - b) PC-based email systems such as Outlook
 - c) Web-based applications
 - d) Business applications used in your job role
 - e) Other, please specify _____

3. How easy to use are your enterprise applications—ERP, CRM (Customer Relationship Management), BI (Business Intelligence), Financials etc.?
 - a) Very easy and intuitive to use given that they deal with complex business processes.
 - b) Somewhat easy to use for straightforward but advanced use is more difficult.
 - c) Somewhat difficult to use and staff need an introduction to these systems.
 - d) Very difficult to use and require an extensive training program.
 - e) Extremely difficult—almost impossible to use—reducing my ability to do my job.

4. In your opinion, which of the following is the top time waster when using business applications?
 - a) Navigating around and between applications.
 - b) Searching for information I need through a complex navigation structure.
 - c) Learning different modules that have different structures, commands and work in different ways.
 - d) Transferring data from one application to another.
 - e) Progressing through functions or business process steps that are not grouped together or ordered in a logical way.
 - f) The application just doesn't work in the way that I want to work.
 - g) Waiting for the applications that have slow to start up and poor system response times.
 - h) I do not experience any wasted time.

5. In the past what priority did you place on application usability when looking to purchase a new system? Please choose the option that best describes your opinion:
 - a) Usability was the most important consideration.
 - b) Usability was considered as important as several other features
 - c) We can train people to use the system, so usability was not a top priority.
 - d) We concentrated strictly on other factors such as functionality and price.

6. Which of these factors most limits your PERSONAL productivity at work?
 - a) Too much work for time allotted.
 - b) Too many emails.
 - c) Too many meetings.
 - d) Lack of clarity of my objectives and priorities.
 - e) The IT systems I use are not optimized to my way of working.
 - f) I cannot easily access the information I need to do my job.

7. Which of these factors most limits the productivity of your ORGANIZATION as a whole?
- a) Unclear or contradictory objectives.
 - b) Too many meetings.
 - c) IT systems which do not match the way your company now works.
 - d) Lack of resources.
 - e) Geographic distance between people & offices.
 - f) Issues with out-sourced/off-shored functions.

FOR QUESTIONS 8 THROUGH 10, PLEASE LET US KNOW HOW STRONGLY YOU AGREE OR DISAGREE WITH EACH STATEMENT.

8. I think that software optimized for better collaboration with my colleagues would improve the productivity of my organization as a whole.
- a) Yes, I strongly agree.
 - b) Yes, I agree somewhat.
 - c) No, I disagree.
 - d) No, I strongly disagree.
 - e) Not applicable. I think my organization has the optimum level of collaboration already.
9. I would like to be able to utilize web resources (such as maps, search, route planning, order tracking) more directly within the business applications your company uses.
- a) Yes, I strongly agree.
 - b) Yes, I agree somewhat.
 - c) No, I disagree.
 - d) No, I strongly disagree.
 - e) Not applicable. I think my organization already has the right level of web/business application integration.
10. My personal productivity would increase if I had more ability to personalize the way I work with business applications?
- a) Yes, I strongly agree.
 - b) Yes, I agree.
 - c) No, I disagree.
 - d) No, I strongly disagree.
 - e) Not applicable. I think my enterprise applications offer me the right level of personalization capabilities already.

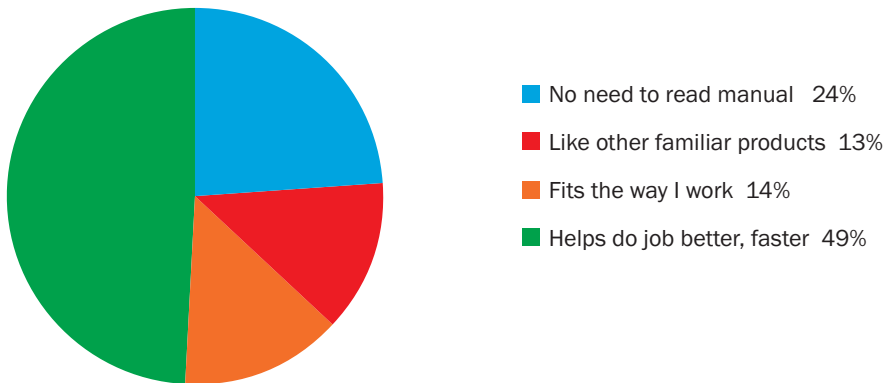
STATISTICAL RESULTS

Following is a summary of the more statistically significant results of this study.

Usability Defined

Respondents had a pragmatic view of usability in that the most popular answer to the question regarding what constitutes usability was that software must make it easier or faster to perform required tasks.

Usability Defined

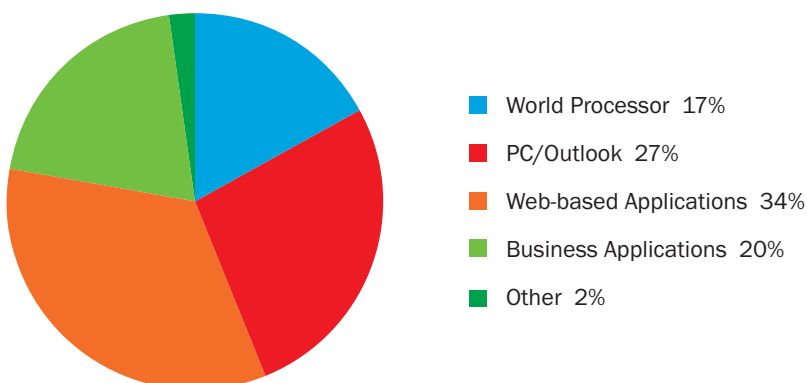


Most Usable Type of Applications

The usability revolution can be attributed largely to the World Wide Web. Enterprise application users are becoming more accustomed to the highly simplified but very powerful applications they encounter on the Web and are wondering why their enterprise tools can not look and feel the same way.

And indeed, a quality enterprise application, in some ways is not unlike the Web. Enterprise software is designed to provide access to large amounts of information in a wide variety of formats in a usable manner. The most progressive enterprise applications have already begun to emulate the Web by adopting service oriented architecture (SOA). The Web is an excellent example of a crude SOA in that it simplifies data enough that the service (the Web application or content) is independent from the Web consumer (browser application). There is a simple set of rules for how the browser and the Web resource interact, so regardless of the browser you are using, you can still access data on the Web.

Most Usable Type of Applications



Moreover, Web programs are designed to be self-explanatory. When the entity offering an application is as far removed from the person consuming it as is the case on the Web, there is really no way to train end users. Moreover, lacking sufficient usability, a Web application will just not be used and will be unsuccessful. This has forced the development of self-explanatory navigation in applications, and easy methods for searching and finding information.

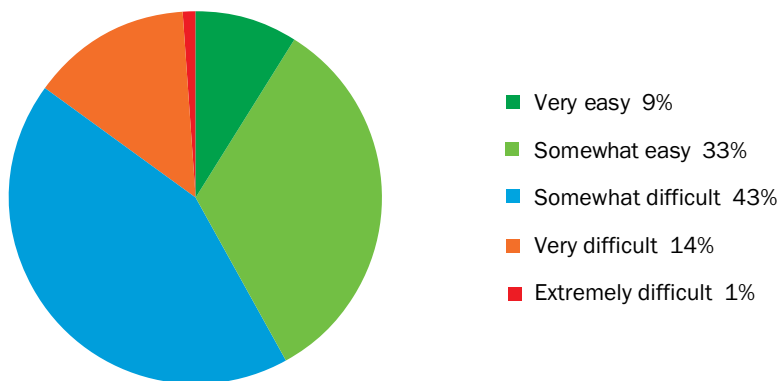
This being the case, it is not surprising that Web-based applications are cited as the easiest to use, followed by PC-based applications. IFS has had Web interfaces for years, but is currently moving its rich user interface in the direction dictated by this result. Our next-generation Aurora interface will look and feel a lot more like functionality users have become familiar with over the Web. This means that the ability to navigate via links, powerful embedded search functions and other Web conventions will become highly sought-after in enterprise applications

How Easy Are Current Enterprise Applications To Use

When asked how easy or difficult their current enterprise applications are to use, a sizable majority of respondents indicated they were presented with varying degrees of difficulty. Less than 10 percent of respondents said their applications were “very easy” to use. The single most popular response was “somewhat difficult.”

The perceived difficulty involved in using existing enterprise applications would suggest that increased usability might be the single most effective way for companies using enterprise software to get more value from their investment in technology. Moreover, the abstruse nature of applications limits the number of people in the organization that can fully participate in business processes. More intuitive applications will enable greater application use by a larger number of people within an organization.

How Easy Are Your Applications To Use?



Top Time Wasters

When asked what challenges they encountered in their enterprise applications that resulted in lost or wasted time, two responses were in a statistical dead heat for the most popular (or unpopular) spot.

The need to search through complex navigation structures to find requisite information and functionality and the need to learn numerous modules/programs all with different navigation structures and conventions were the most often-cited time wasters.

IFS customers surveyed did not as frequently report challenges presented by dissimilar modules throughout the suite as did other respondents thanks to our well integrated suite and consistent user interface throughout. We suspect that this complaint was more frequently made by those using enterprise suites that consist of a handful or more of applications purchased by a vendor and tied into each other as a functional suite.

We have already begun paying attention to the difficulty of finding material in an enterprise application, having launched in late 2007 Enterprise Application Search (EAS), which is perhaps the first integrated search tool within a major enterprise suite.

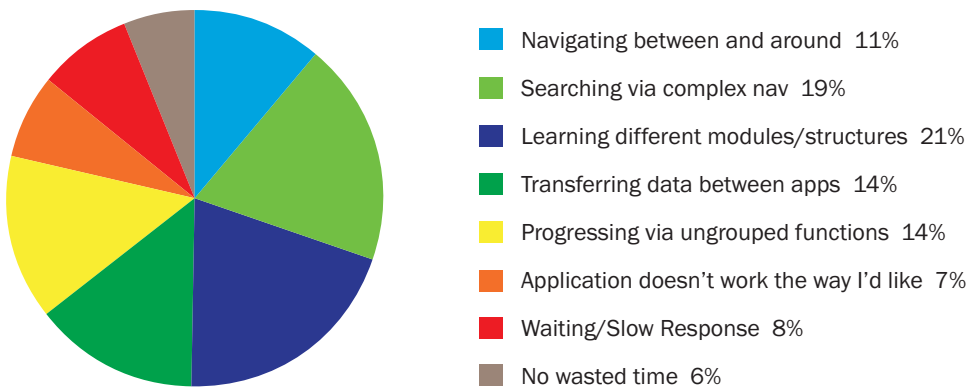
Here again, a comparison to the Web can be made. Those of us old enough to have made heavy use of the Web prior to Google and Alta Vista remember what it was like to use a complex system with a tremendous amount of data without any consistent or thorough index. Links pages were very popular precisely because the only way to find anything on the Web was to already know where it was!

Within an enterprise application you can often search for data, but you still need to know which of hundreds or thousands of forms, and which field within that form, to query. At best, a company may need to license search tools that bolt onto the enterprise application, costing a small fortune and presenting various security risks.

Integrating search into the application we feel will become more of a requirement than the oddity that it is now. The easier it is to find data and functionality within the application, the less training is required and the more usable the application will become.

Other usability challenges that scored into the double digits among respondents were transferring data between applications and progressing through ungrouped functions.

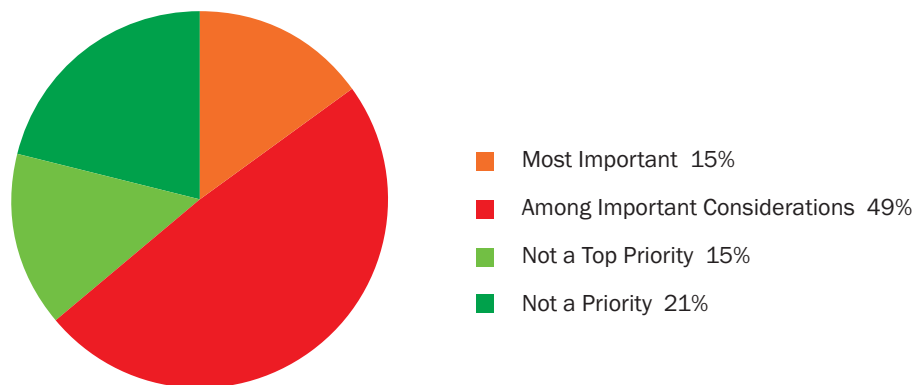
Top time Wasters



Priority Given Usability in Selection

We were somewhat surprised with the degree to which survey respondents said they considered usability during a selection process. Almost 65 percent of respondents said that usability was either the most important or among a number of important criteria considered during software selection.

Usability As Selection Criteria



SUPPLEMENTAL QUESTIONS

The remaining questions in the survey were put to respondents strictly in Scandinavia and North America, with a total of 654 respondents.

The first two questions are designed to determine the extent that a lack of enterprise applications usability is perceived as a problem relative to other productivity drains.

The answers to the final three questions reveal fascinating data regarding specific usability features respondents are interested in.

Which of these factors most limits your productivity as an organization as a whole?

Too much work for the time available	28%
Too many emails	16%
Too many meetings	18%
Lack of clear priorities	13%
IT systems not optimized	13%
Lack of easy access to info	13%

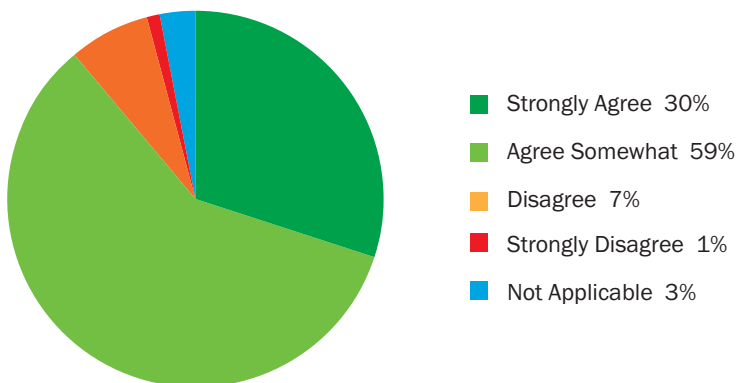
Which of these factors most limits your productivity as an individual?

Unclear or contradictory objectives	21%
Too many meetings	18%
IT systems that do not match way company works	21%
Lack of resources	32%
Geographic distance between offices	13%
Issues with outsourced or offshored functions	2%

Responses to these general organizational questions might suggest that enterprise application usability is a consideration for both individual and organization effectiveness.

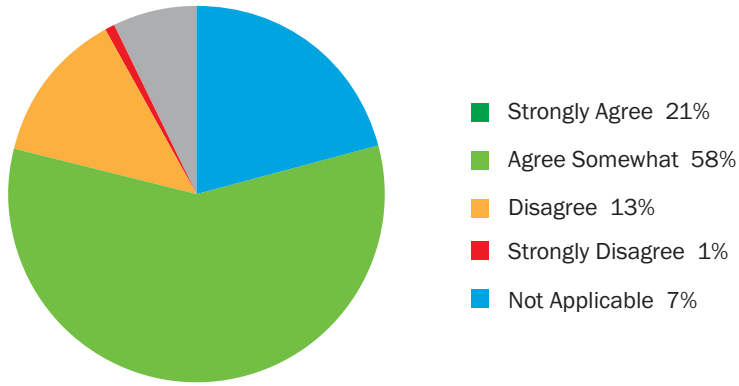
Perhaps the most fascinating pattern the survey data point to is a desire for applications that do more to facilitate collaboration. Even some of the answers to the above two questions—issues with offshored functions and geographic distance between offices—can be characterized as collaboration-related.

Interest in Applications that Aid Collaboration



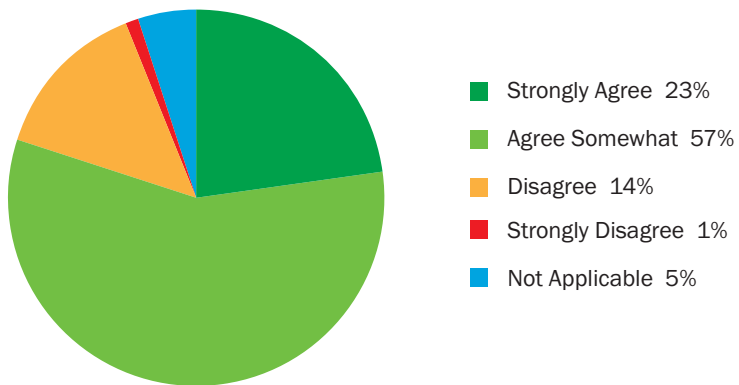
Given how familiar enterprise software users are with functionality offered on the Web, it is not surprising that respondents expressed interest in integrating their business applications with Web-based tools.

Want To Use Web Resources?



Nor is it surprising that respondents said that if they could personalize the way the application looks and works for them, that their productivity would increase.

More Productivity From Personalization



CONCLUSION

Enterprise software usability is important to those using these technologies, and it is increasingly a factor in product selection. The underlying goal of implementing enterprise applications has been to increase productivity, and in order to be successful, next-generation enterprise tools will need to offer usability gains by becoming more intuitive and eliminating barriers to productivity.

Some enterprise suites have greater barriers to usability than others, and these structural barriers include:

- Multiple purchased products integrated into a suite, which force users to learn many different user interfaces and architectures rather than just one.
- Modules that do not facilitate easy flow of information between one part of the suite and others (from purchasing into finance, for instance).
- The applications are too disjointed, or the vendor's business model does not allow for, an integrated enterprise application search tool.
- Convoluted architectures that will make it hard to evolve applications towards a more usable interface.

The last bullet point above may be the most problematic for some market players, because without a fully-developed service-oriented architecture (SOA), it may be necessary for a software vendor to fully redevelop their application just to simplify the user interface.

In some cases, vendors may chip away at the usability problem by selling additional products, like search tools that bolt onto an application. These tools not only bring additional license costs but typically require a significant integration effort to properly implement. This added expense may be difficult for mid market companies in particular to absorb, resulting in that fewer companies use these technologies and thus lose out on the benefits.

In the months to come, IFS looks forward to the launch of our Aurora interface, which will become available to any customer operating the most current version of IFS Applications. The design of our suite allows the interface to be changed without disrupting the underlying business logic.

IFS Applications already addresses usability when it comes to finding material within the application, and includes the first enterprise application search (EAS) tool, and also comes to our customers with no additional charge. We firmly believe that the future will belong with software vendors who simplify and streamline their applications for usability rather than those who market separate and costly products that purport to solve usability issues presented in the core application.