

*User satisfaction analysis
Forecasting software packages*

November 2007

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1 INTRODUCTION

The consultancy bureau, Möbius in collaboration with Régis Bourbonnais, coordinator of the 'Master in Logistics: Network management and economics' at Université Paris Dauphine and Supply Chain Magazine, have compiled a study on the satisfaction of users of demand forecasting software packages. User satisfaction with forecasting software is most obviously of primary interest to the users and the consultancy bureaus charged with implementing their recommendations but also to the software developers themselves.

2 OBJECTIVES

The goal of this study is to present:

- The point of view of software users
- The procedures followed when selecting software packages
- The views of users with regard to the implementation of software packages
- The different results of software implementations from one company to another
- ...

3 PROCEDURE

We compiled a questionnaire comprising 5 main parts:

- General questions about the company, the user and the solution used
- Questions about the choice of solution
- Questions about the implementation
- Questions about daily use
- Questions about general satisfaction with the software

We used different channels for obtaining responses to our questionnaire:

- The press: Supply Chain Magazine in France, Logistiek Magazine in the Netherlands and Business Logistique in Belgium
- The network of former students of the Master in Logistics at Dauphine
- MÖBIUS client database (dispatched questionnaire + telephone call)

We received around 100 responses to our questionnaire.

4 RESPONSE QUALITY

Of the 104 responses, not all were filled in completely. Some responses did not cover daily use or user satisfaction, parameters which do not apply at the moment of choosing or implementing a software package; users may not have had sufficient time to reflect in order to fill out these other sections.

Moreover, we have our doubts about some of the other responses... We were not sure whether these responses were exclusively related to forecasting software.

A selection was therefore made in order to filter out responses that appeared not to be relevant.

The following selection criteria were applied:

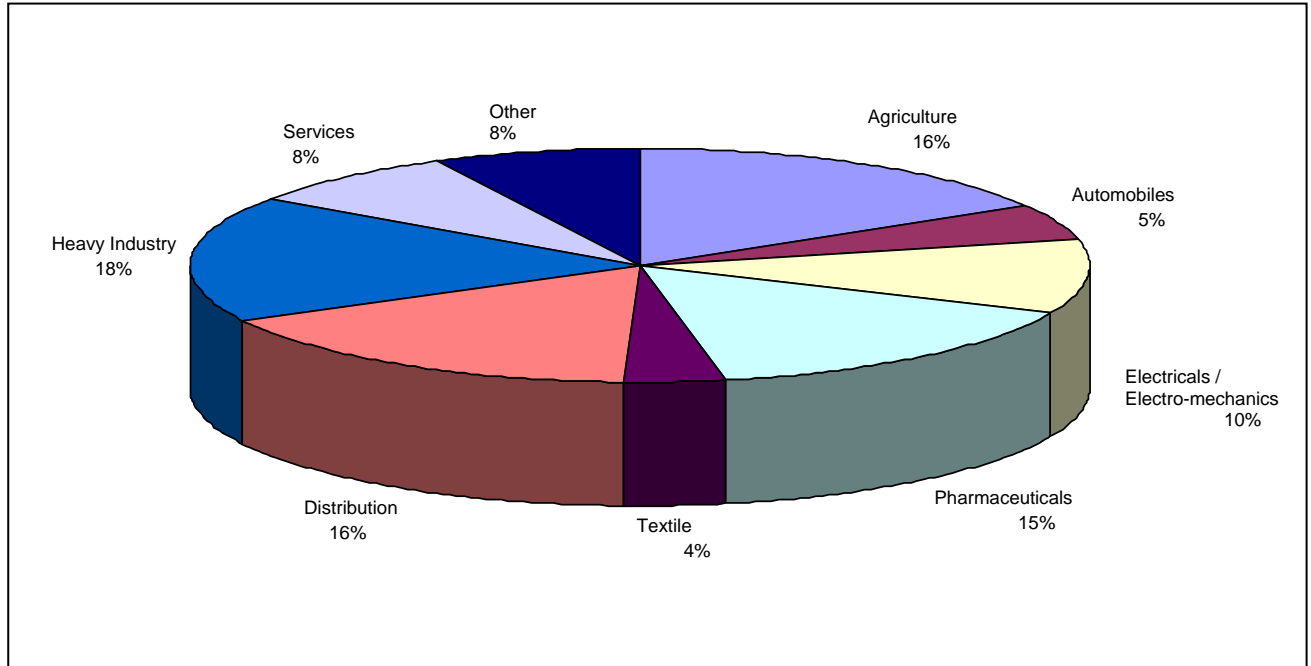
- The solution cited: we removed responses related to solutions not known to involve forecasting packages
- The respondent's function
- The features developed or lacking: some responses to these questions were related to stock or production management

In the end, the analysis was based on 79 responses.

5 GENERAL INFORMATION

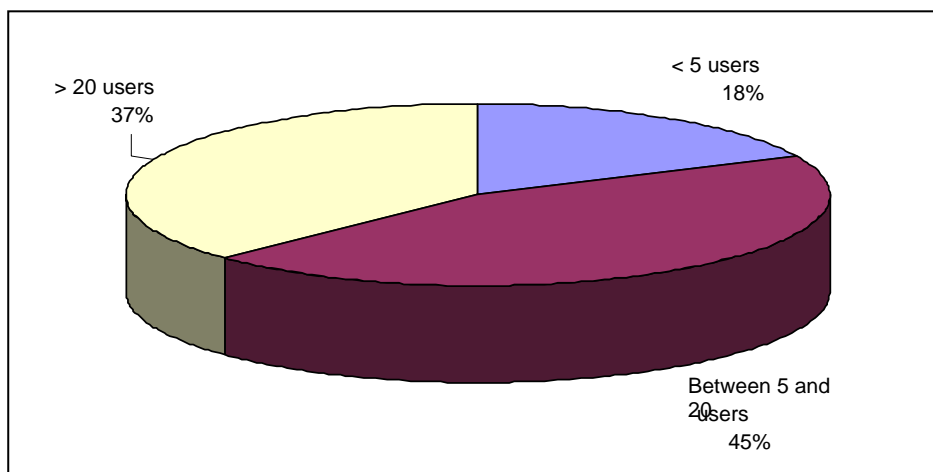
5.1 SECTORS

On the basis of the chart below, we observe that all sectors are represented.



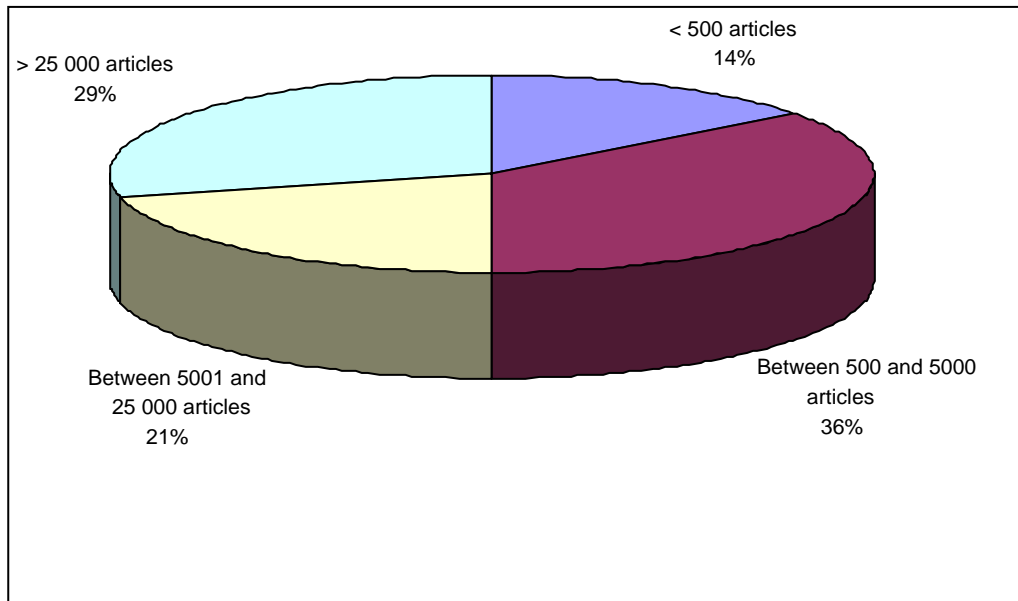
The “other” sectors include perfume, cosmetics, optics and other specific activities. The study did not allow for the extrapolation of sector-specific trends.

5.2 NUMBER OF USERS



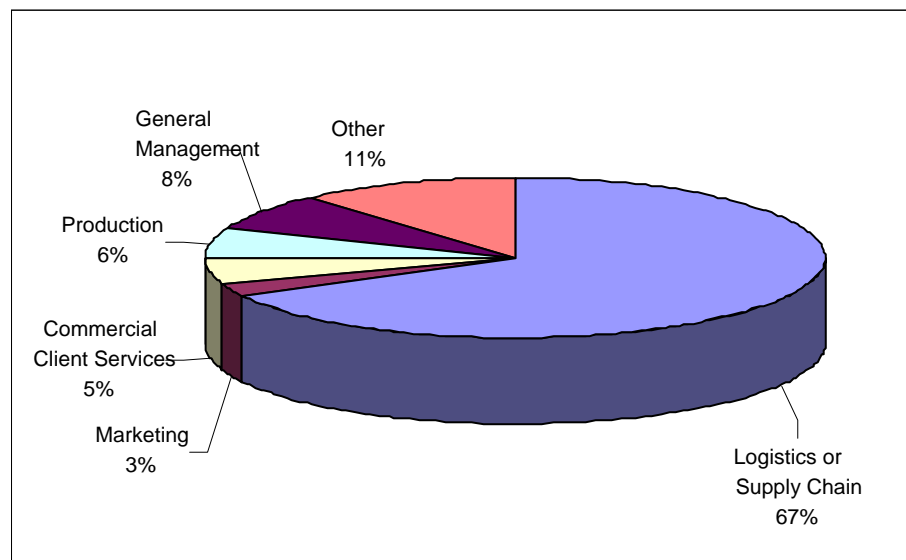
- 18% of the companies questioned had less than 5 users:
 - exclusively using forecasting software
 - not necessarily small businesses
- 45% of the companies questioned had between 5 and 20 users and 37% more than 20 users:
 - Large groups
 - Using complete SAP or ERP solutions

5.3 NUMBER OF ARTICLES



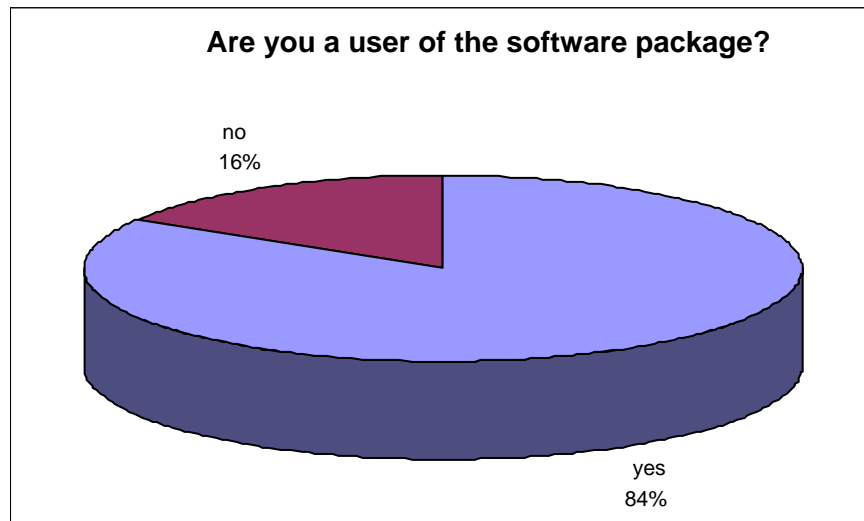
- 14% of respondents have less than 500 articles
- Is there a minimum number of articles from which one should install a forecasting tool?

5.4 FUNCTION



The majority of forecasting activities are conducted within the logistics or supply chain department.

- 67% of forecasting is conducted by the company's logistics/SC department
- "Other" represents:
 - Finance
 - IT
 - Purchasing



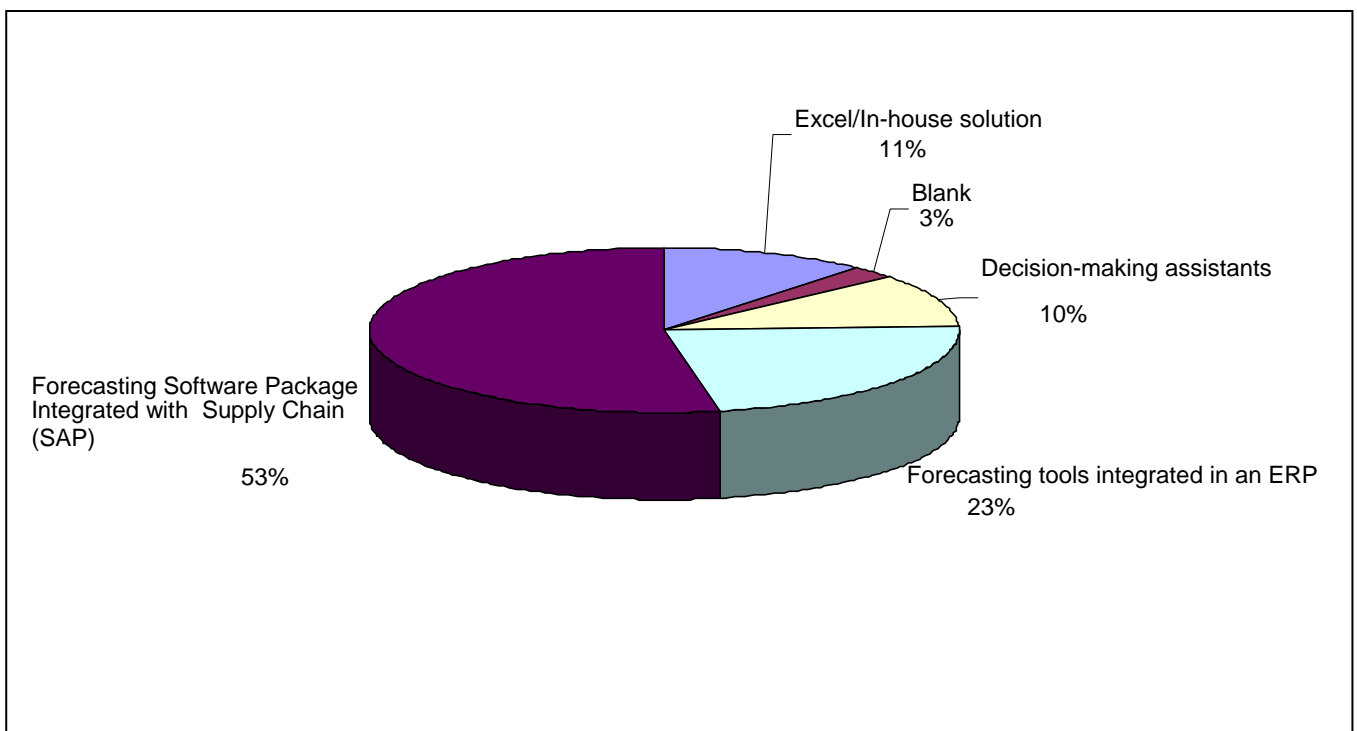
Respondents were generally software package users.

5.5 SOLUTIONS

In total, around 30 software packages were cited. We have grouped them per category:

- Forecasting tools integrated within ERP
- Forecasting software packages integrated within a SAP
- Decision-making assistants
- In-house solutions/Excel

In addition, some respondents did not wish to provide the name of the software package. We observed that 53% comprise software packages integrated within SAP and 23% within an ERP.

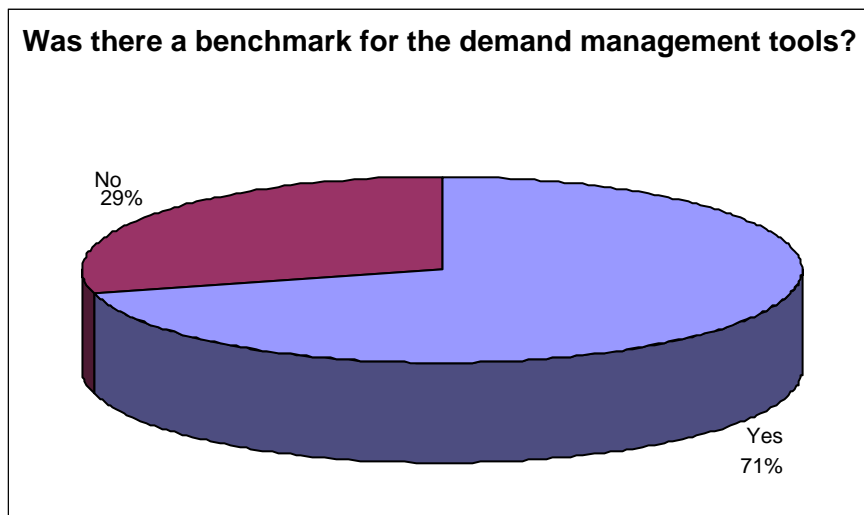


The software packages cited are listed below:

- Adexio
- APERIA FORECASTER
- APO DP
- AZAP
- BAAN
- Bespoke system
- Buy For Sales Telamon
- COGNOS PLANNING
- CRM
- Internal development Gold shop
- EQUAZION
- Factory Planner (i2 Technologies)
- FUTURECAST
- FUTURMASTER
- Galionsoft
- GPRO -ERP
- Manugistics (DPEE)
- Manugistics (JDA)
- MERCIALINCS
- MLPC (infor)
- OPTIMATE
- Optimiza Demand Planner
- OPUS10
- PEOPLE SOFT
- SAP
- SKEP (Dynasys)
- SLIM4
- Topase Aldata
- TXT Demand
- Walter's (Sté BSK)

6 CHOICE OF SOFTWARE PACKAGE

6.1 BENCHMARKS

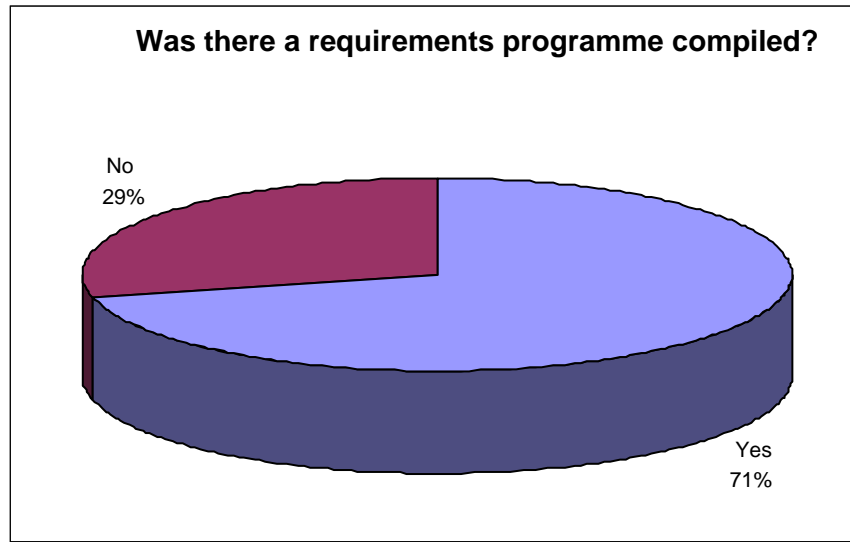


The majority of organisations to have implemented a forecasting package also used a forecasting tool benchmark.

29% of respondents did not employ a benchmark when choosing their software package.

Of the 29%, 71% use Excel-based or in-house solutions or software integrated within an ERP.

6.2 COMPILING A REQUIREMENTS PROGRAMME



29% of respondents did not compile a requirements programme

- 23.8% quite satisfied
- 47.6% very satisfied

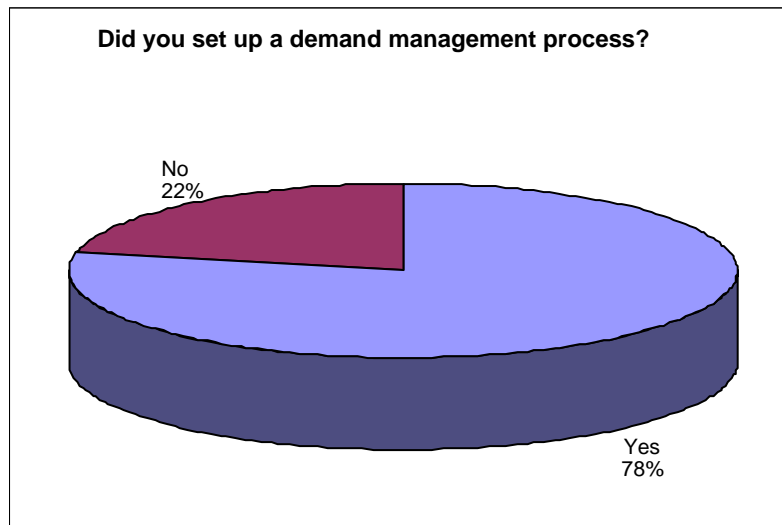
71% of respondents did compile a requirements programme

- 46.2% quite satisfied
- 23.1% very satisfied

Formalising requirements leads to users becoming more demanding.

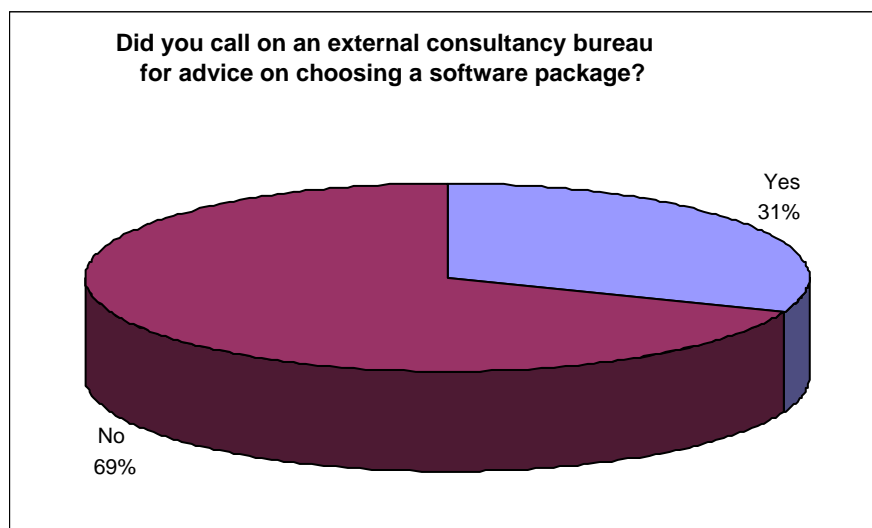
All companies which hired a consultancy bureau compiled a requirements programme.

6.3 SETTING UP A FORECASTING PROCEDURE



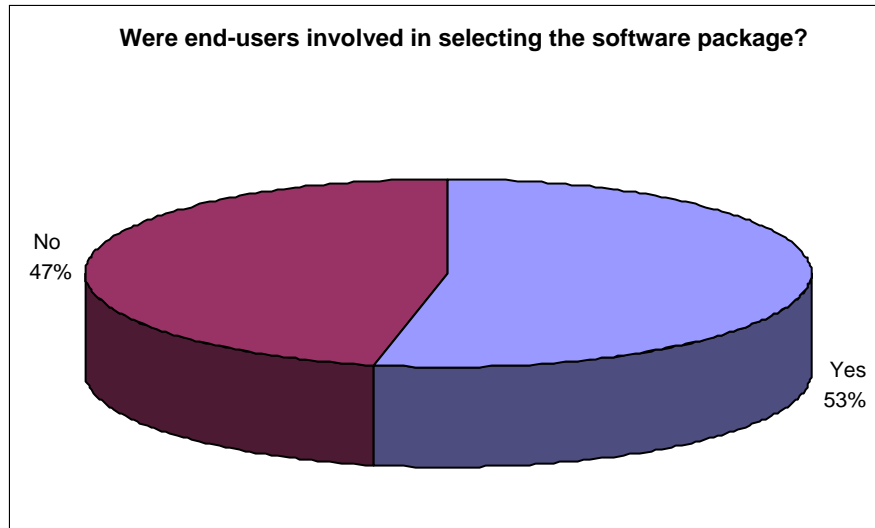
- 22% of respondents did not set up a forecast management process.
 - 79% achieved their objective
- 78% of respondents did develop a forecast management process
 - 91% achieved their objective
- All companies which hired a consultancy bureau set up a forecast management process.

6.4 CONSULTANCY BUREAU SUPPORT

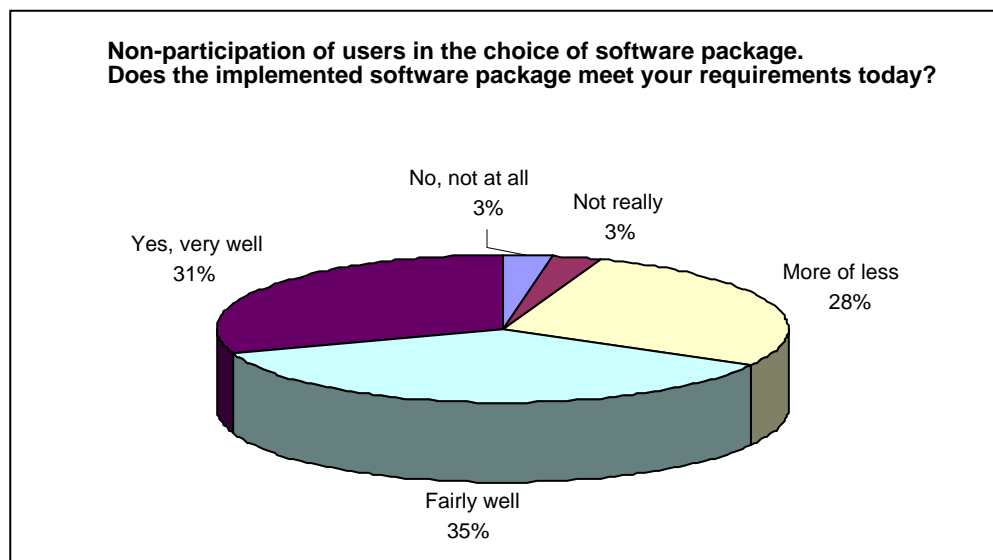


- 31% of respondents hired a consultancy bureau
- 69% of respondents did not hire a consultancy bureau

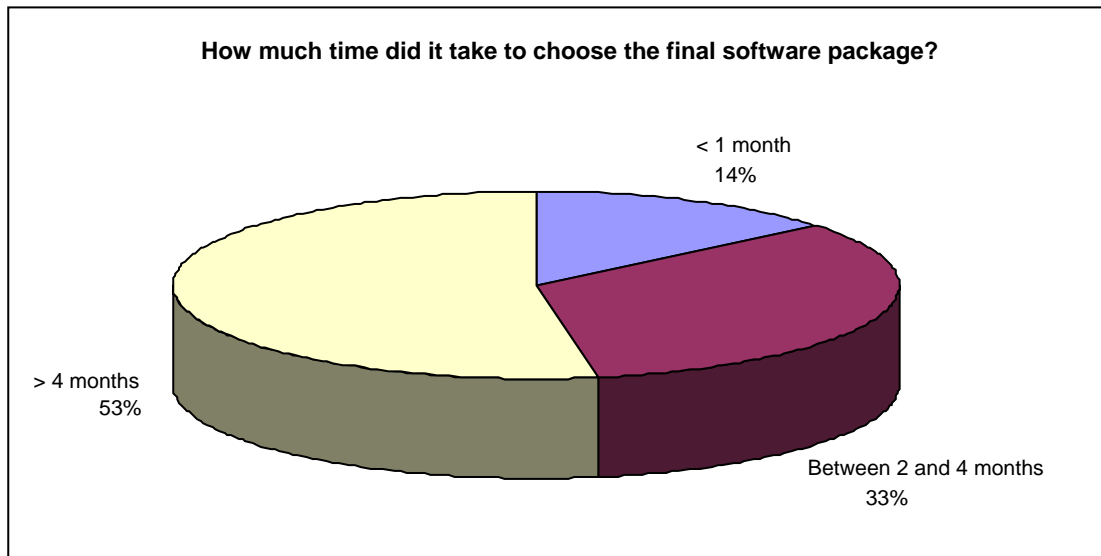
6.5 USER PARTICIPATION IN THE SELECTION PROCEDURE



- Nearly half the respondents did not participate in the selection process of the software package:
 - 66% satisfied vs. 74% satisfied when the user was able to take part in the selection process.
- Importance of including users from the beginning of the project

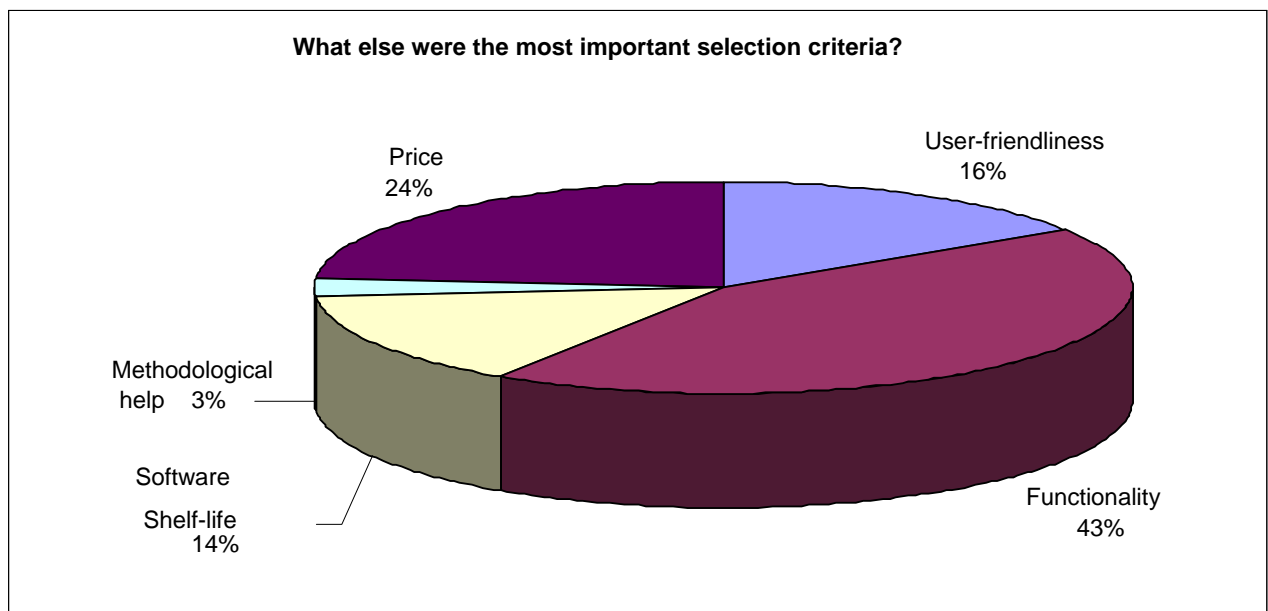


6.6 DECISION TIMES IN CHOOSING A SOFTWARE PACKAGE



- 53% of respondents took more than 4 months to choose a software package
 - 64% of whom were satisfied
- 14% of respondents took less than 1 month to choose a software package
 - 80% of whom were satisfied
- No correlation between selection time and satisfaction

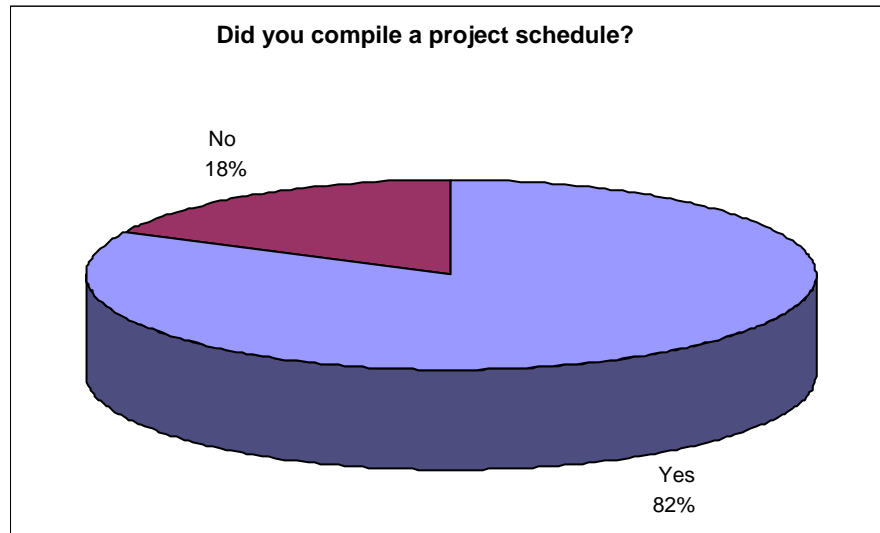
6.7 SELECTION CRITERIA



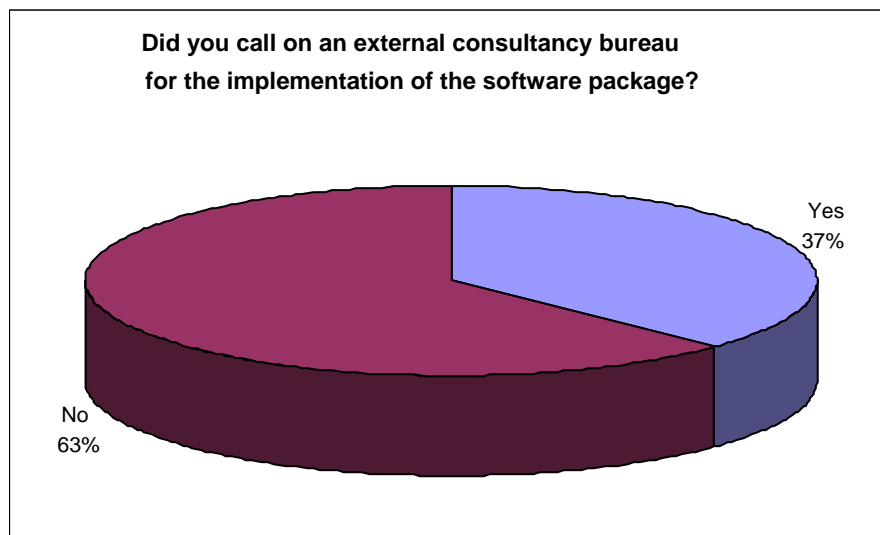
- The dominant criteria for the selection of a software package are functionality (43%) and price (24%)
- Only 3% of respondents found methodological help to be an important criterion in the choose of tool

7 IMPLEMENTATION

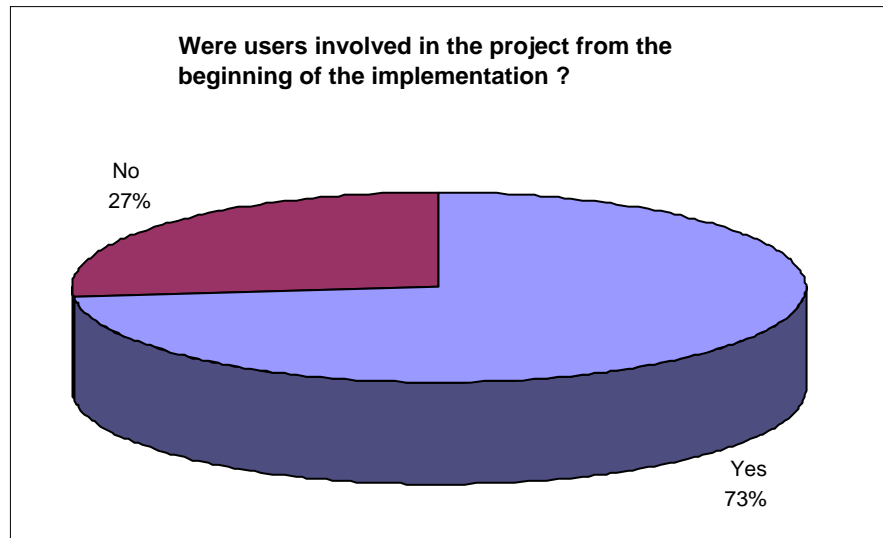
7.1 PROJECT



- Only 17% did not compile a project schedule
- 83% did compile a project schedule

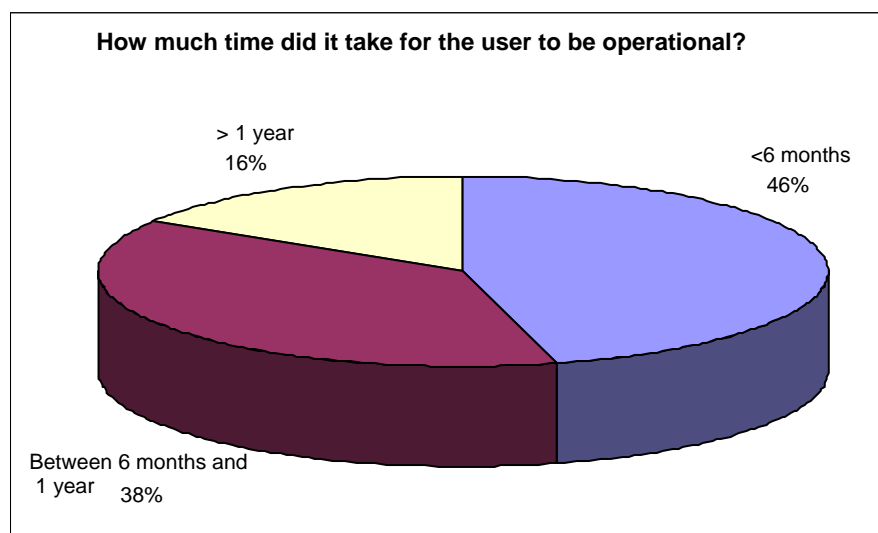


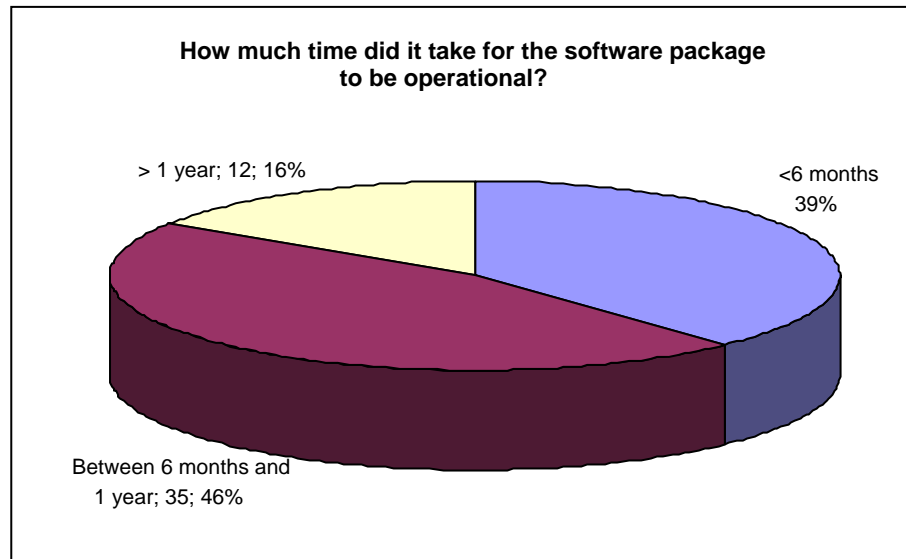
- 37% of respondents hired a consultancy bureau
- 63% of respondents did not hire a consultancy bureau



- The majority of users (74%) were able to participate in the implementation of the tool:
 - On schedule: 70%
- 26% did not participate in the implementation:
 - On schedule: 47%

7.2 IMPLEMENTATION TIMES

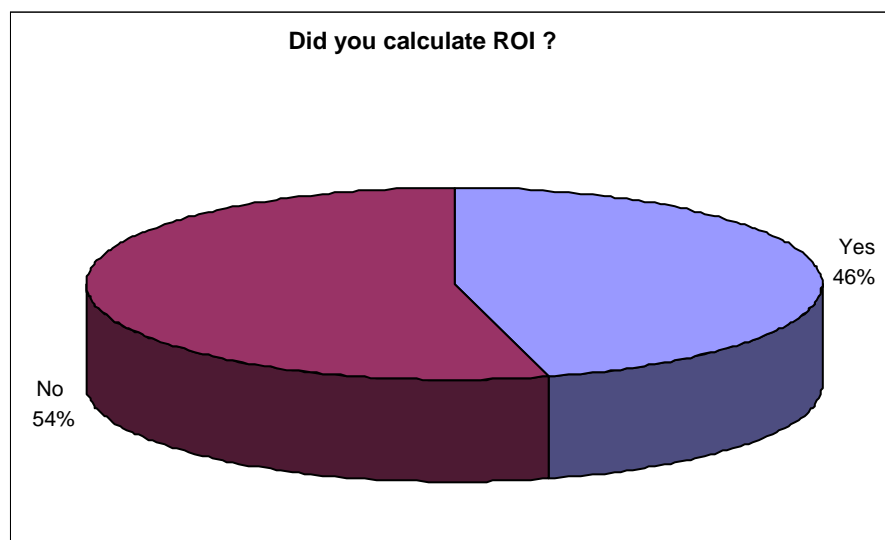




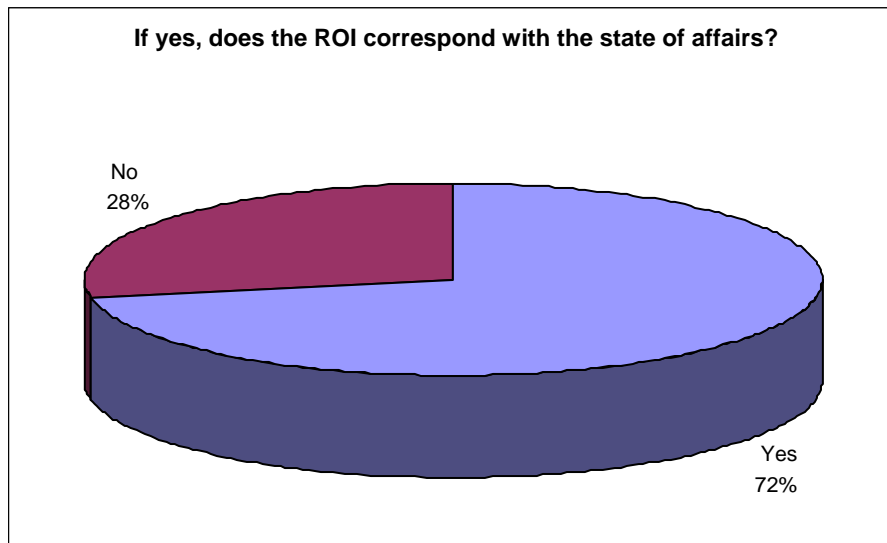
- In general, less than one year for the implementation of this kind of software package is typical
 - 16% implementation > 1 year:
 - 72% required specific development
 - 9% of respondents were very satisfied (36% quite satisfied)
 - 84% implementation < 1 year:
 - 51% specific development
 - 72% satisfied in total

7.3 ROI CALCULATION

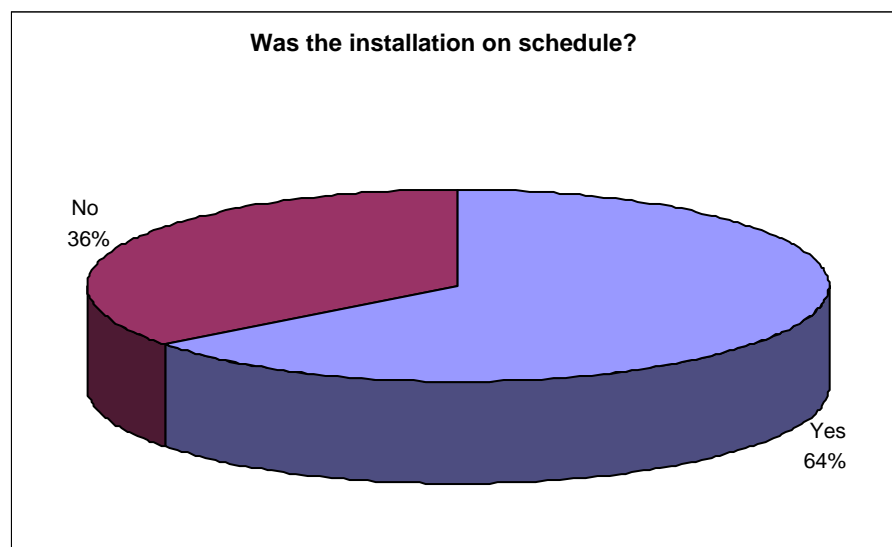
This question received many blank responses.
There were only 70 responses to this question of the 79 questionnaires treated.

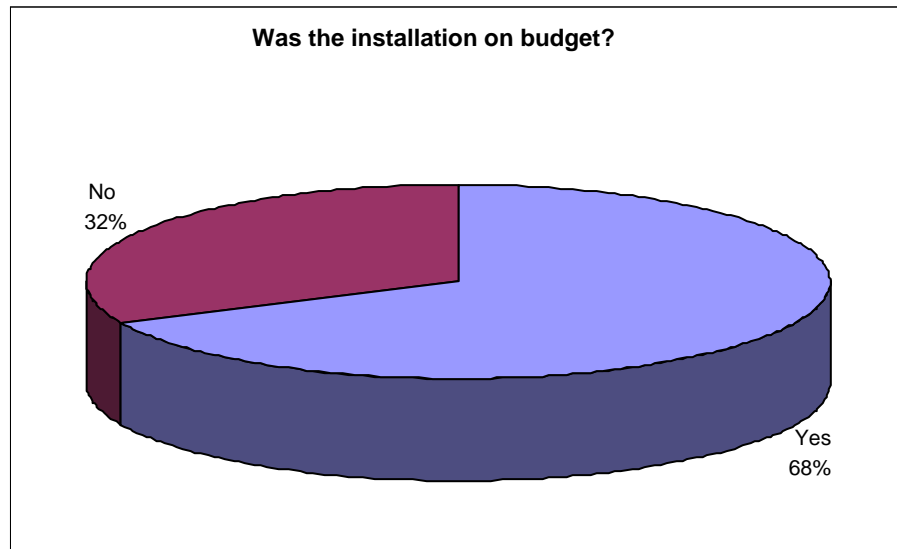


- The majority of respondents did not calculate ROI
- Difficult task as the following needs to be calculated:
 - Losses generated by unreliable forecasts
 - Gains from more reliable forecasts
 - Possible reduction in stock
 - Time gained in forecasting process itself
 - ...
- 46% of respondents calculated their ROI.
 - 72% correspond with the state of affairs

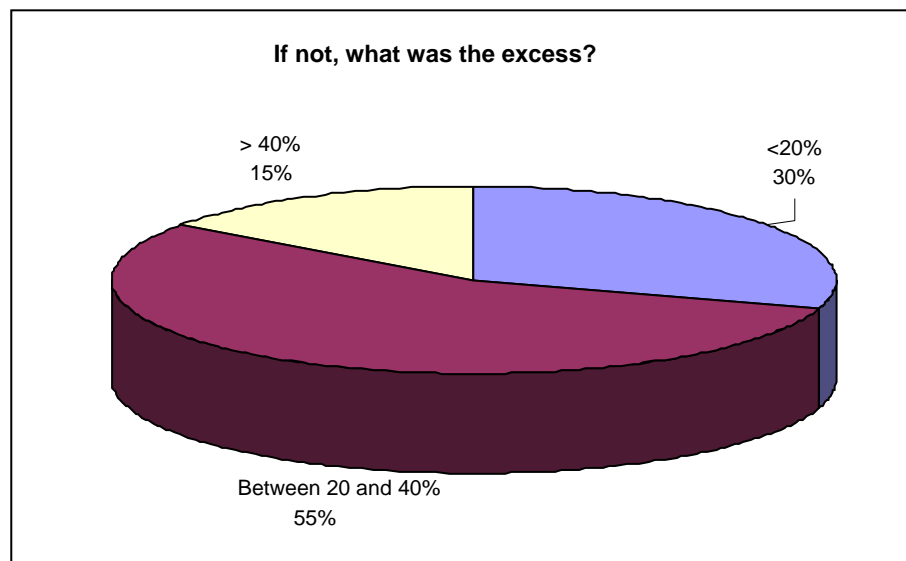


7.4 RESPECTING SCHEDULE AND BUDGET

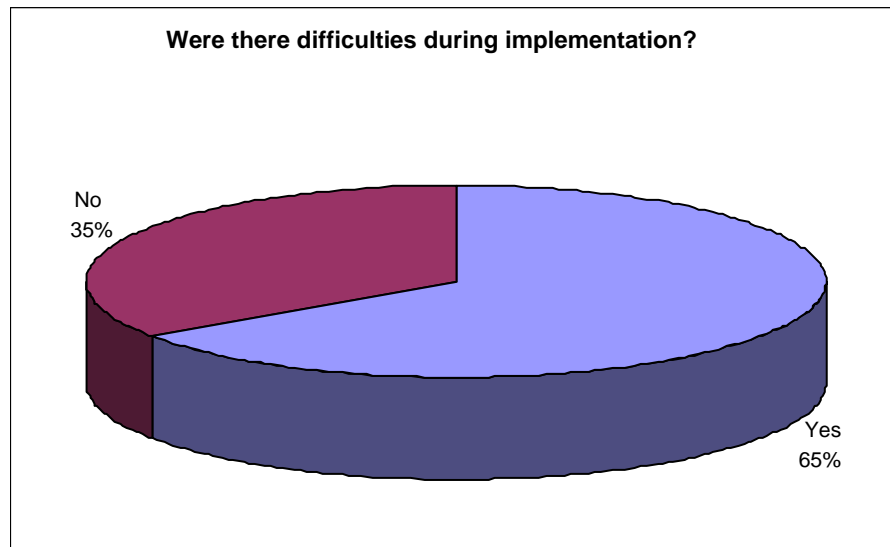




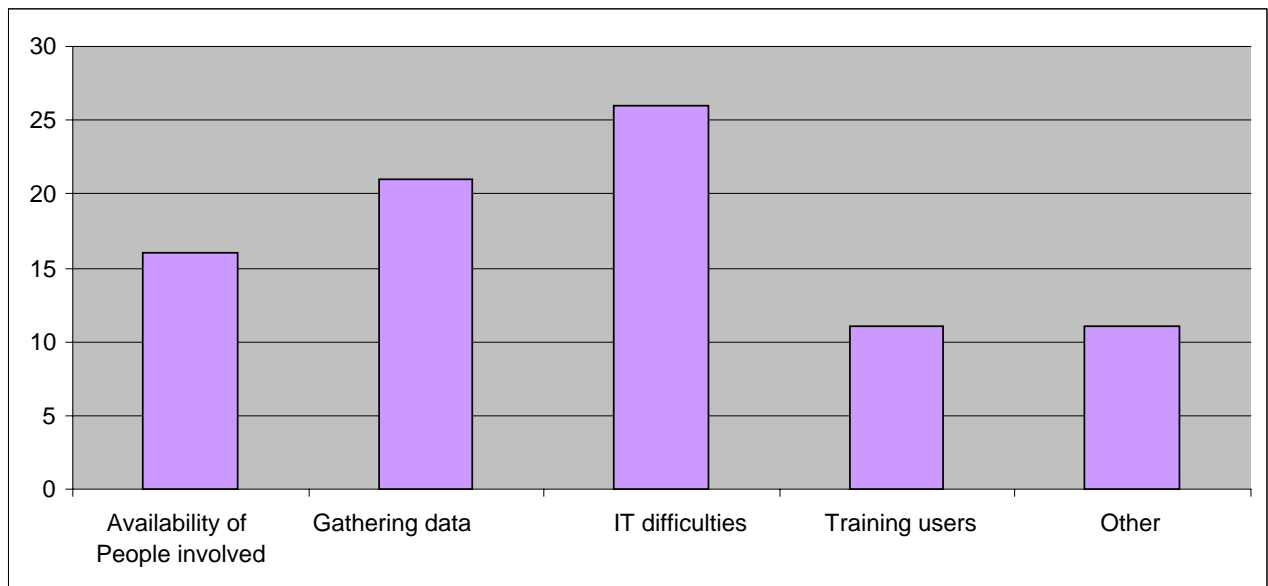
- The installation was on schedule for 65% of respondents
- The installation was on budget for 69% of respondents
- In cases where the budget was not respected, 70% were more than 20% over budget

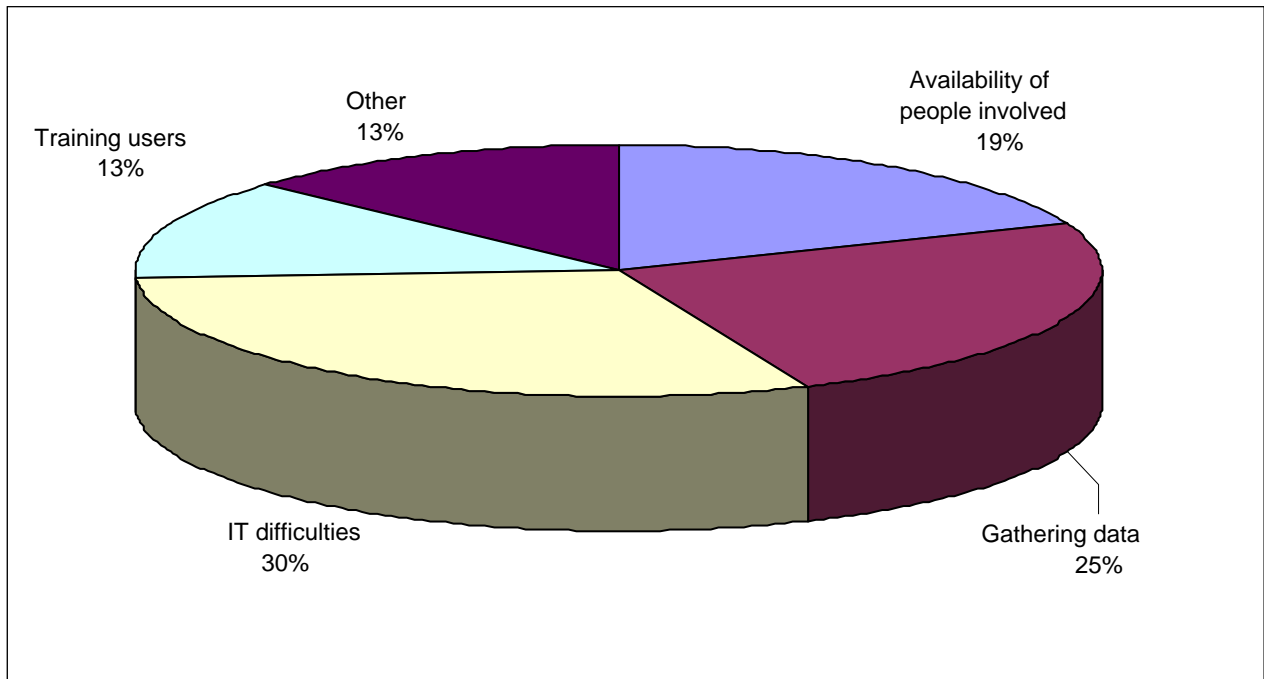


7.5 DIFFICULTIES WITH IMPLEMENTATION



- 66% of respondents encountered difficulties during implementation
- 30% of difficulties were related to IT:
 - Relevance of data
 - Interface with ERP / IHM

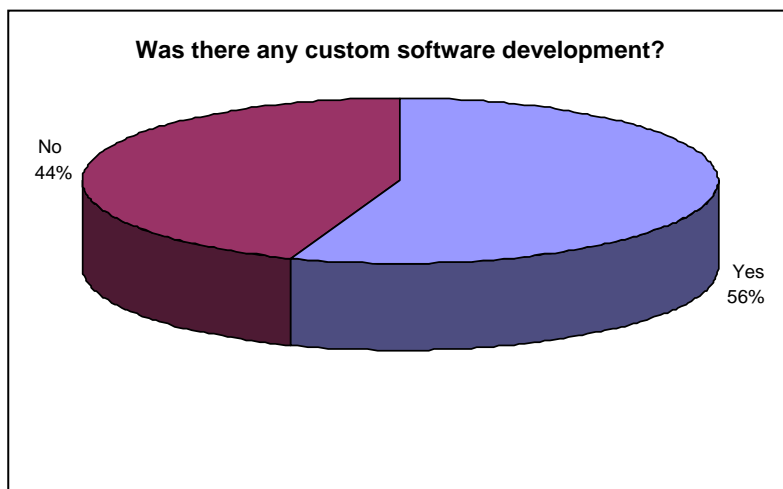




The main difficulties encountered were the following:

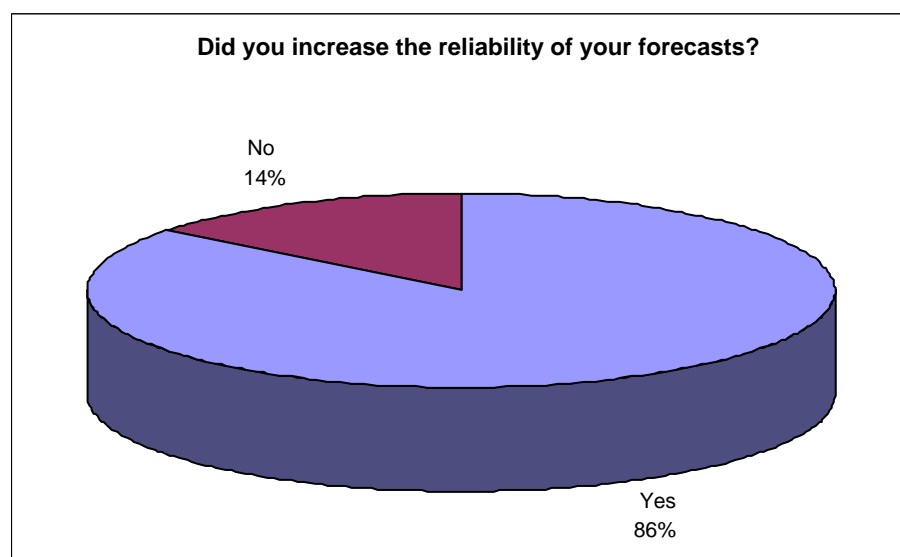
- Lack of awareness of the benefits of forecasting / Convincing several people within the organisation of the need for this new tool
- Lack of interaction between the developer and the users
- Choice of modelling level
- Use of the software package at the beginning of the implementation
- Change management

7.6 CUSTOM SOFTWARE DEVELOPMENT

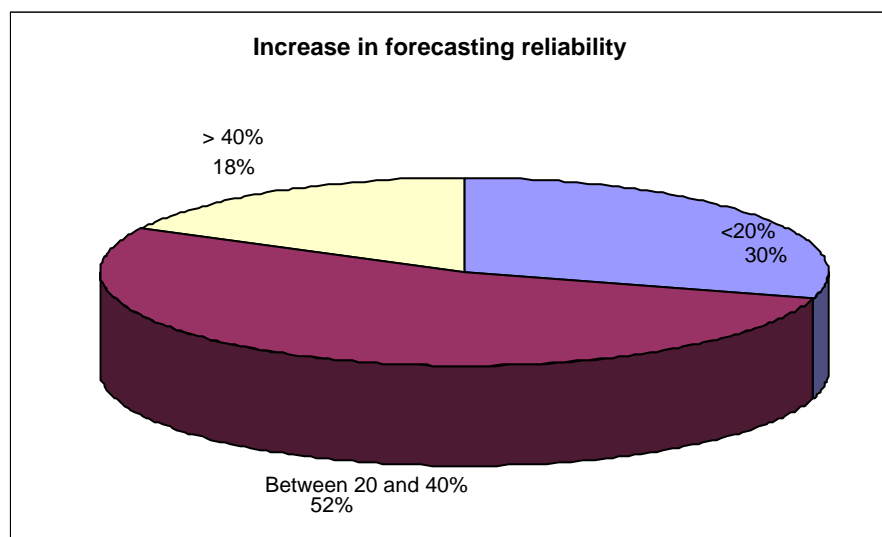


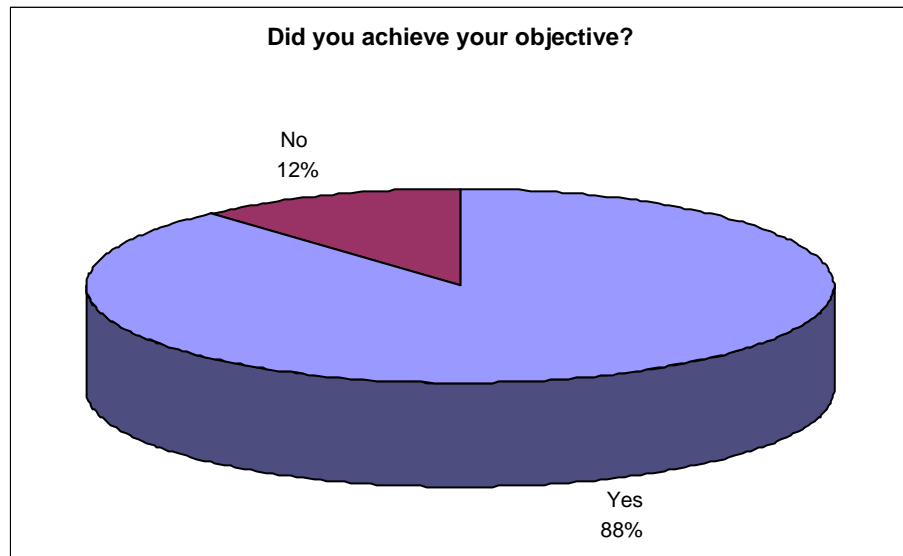
- More than half the respondents requested custom software development
- Examples of custom development:
 - Movement of quantities from one month to another
 - Specific management rules / Adaptation of processes and working methods
 - Budgeting features
 - Export from Excel of articles with histories and forecasting / Interface
 - Chart management
 - Reporting improvements
 - Product lifecycle management (substitution)

7.7 RELIABILITY AND OBJECTIVES



- Most of the respondents improved the reliability of their forecasting
- 54% increased reliability by 20 to 40%
- 14% did not increase forecasting reliability:
 - 60% were only more or less satisfied or dissatisfied
 - 80% are considering changing software package

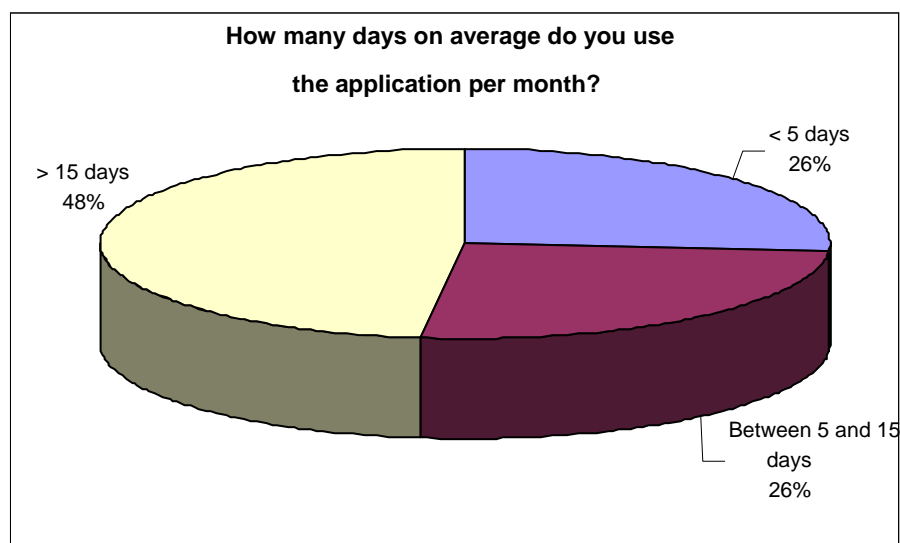




- 88% of respondents claimed to have achieved their objectives:
 - 77% were satisfied with the software package
- 12% of respondents claimed not to have achieved their objectives:
 - 12.5% are quite satisfied (0% very satisfied)

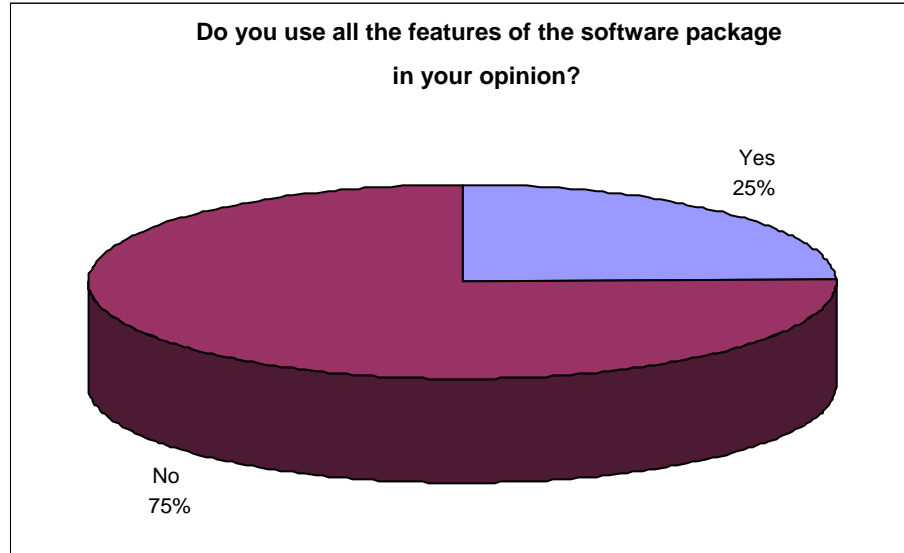
8 DAILY USE

8.1 MONTHLY USE OF THE SOFTWARE PACKAGE



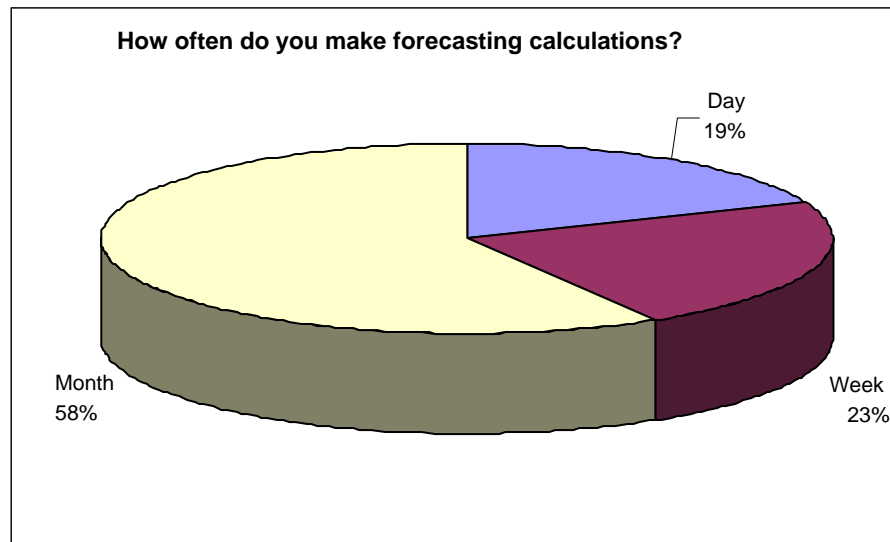
- 47% of users spend more than 15 days/month working on the software package
 - Setting up the forecasting process in 85% of cases
- 53% of users spend less than 15 days/month working on the software package
 - Setting up the forecasting process in 73% of cases

8.2 USE OF FEATURES



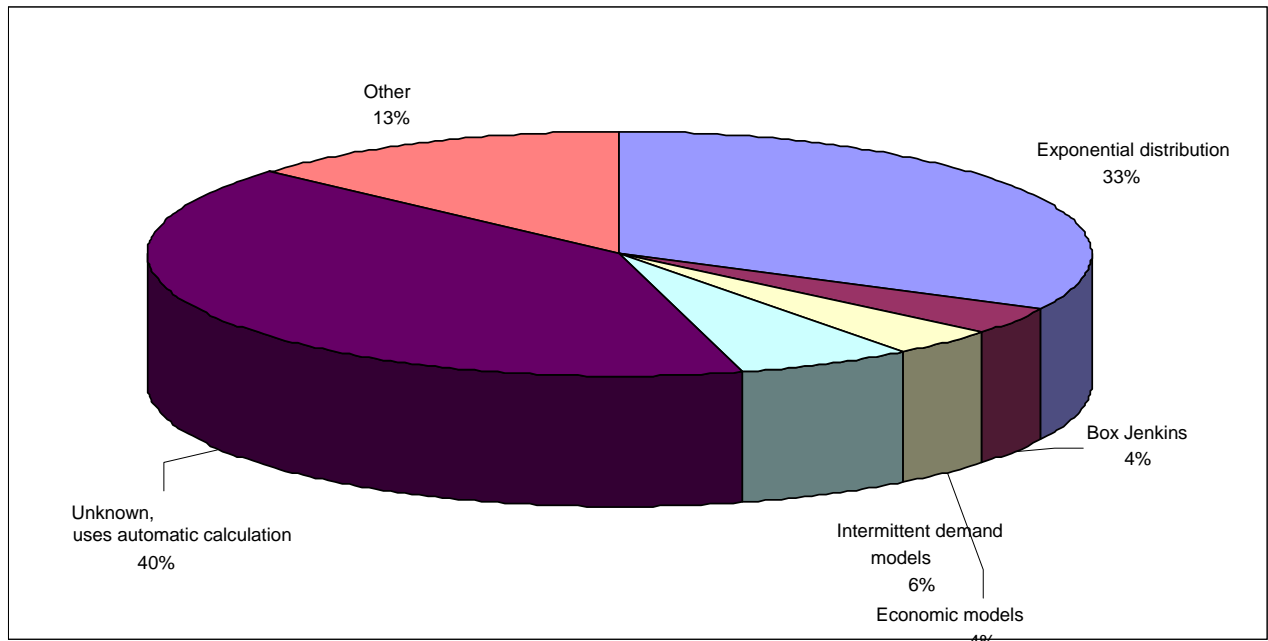
- The majority of users do not think they use all the features included in the software package

8.3 REGULARITY OF FORECAST CALCULATIONS



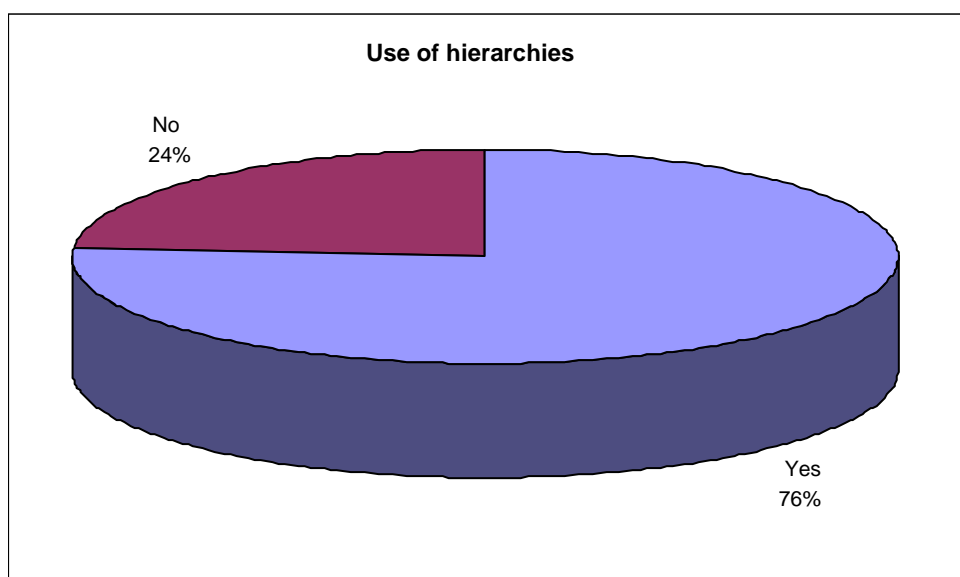
- 58% of forecasts are calculated monthly
- Many responses combine weekly/monthly or daily/weekly

8.4 FORECASTING TECHNIQUES

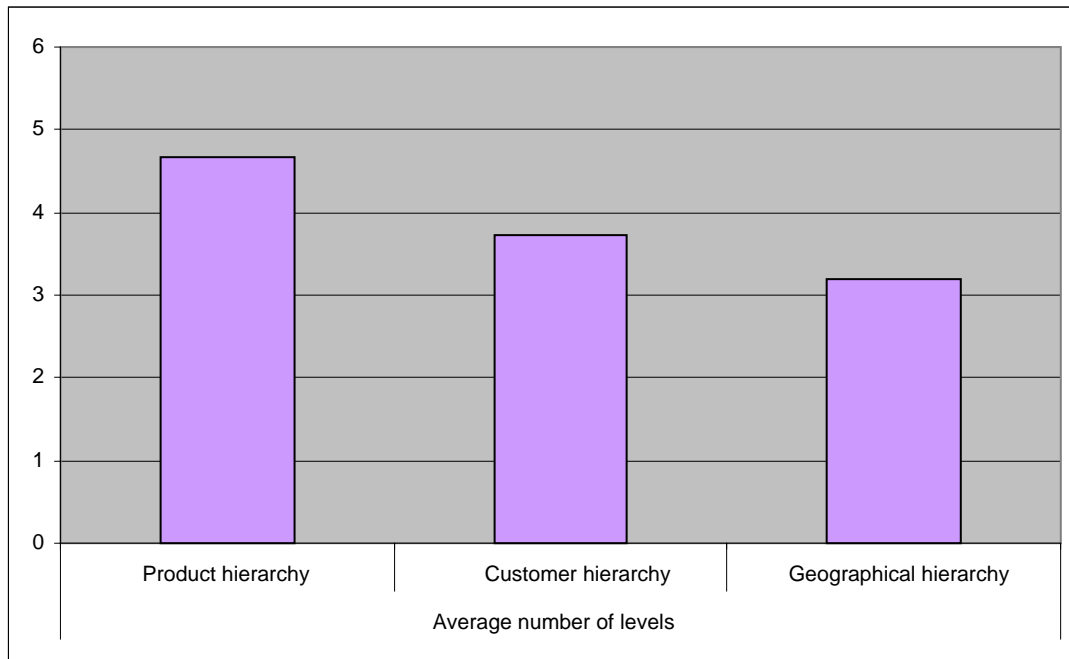


- 41% of users who responded to the questionnaire did not know which calculation techniques were used
- Among the “Other” forecasting techniques, we found the following responses:
 - Nielsen data comparison
 - Reproduction of the previous year’s requirements + corrections in collaboration with commercial department
 - Fourier series, soon Lewandoski
 - Polynomial regression
 - Bayes theorem and dynamic linear modelling
 - Data entered by customers

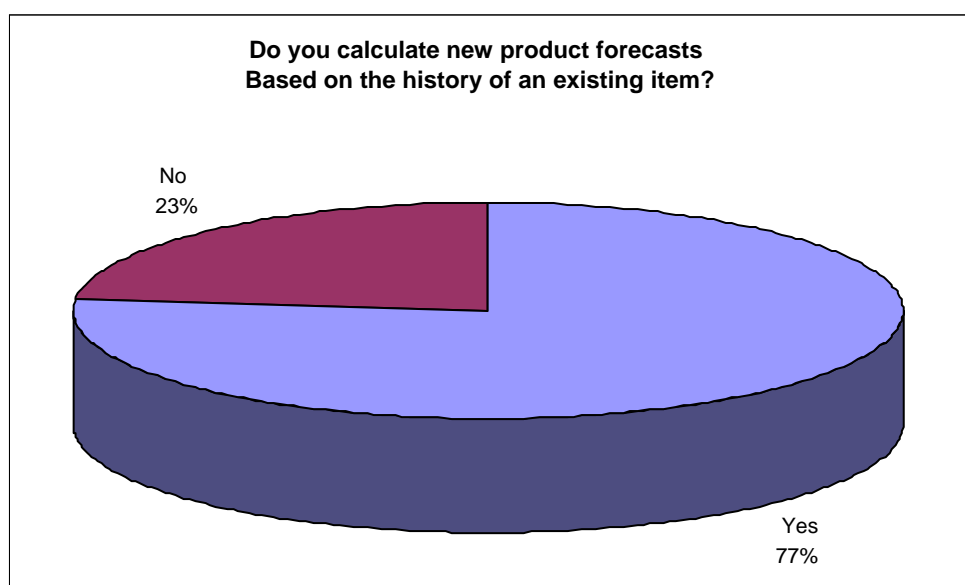
8.5 USE OF HIERARCHIES



- 77% of respondents use hierarchies
- On average, there are:
 - Between 4 and 5 levels for the “product” hierarchy
 - Between 3 and 4 levels for the “customer” hierarchy
 - Between 3 and 4 levels for the “geographical” hierarchy

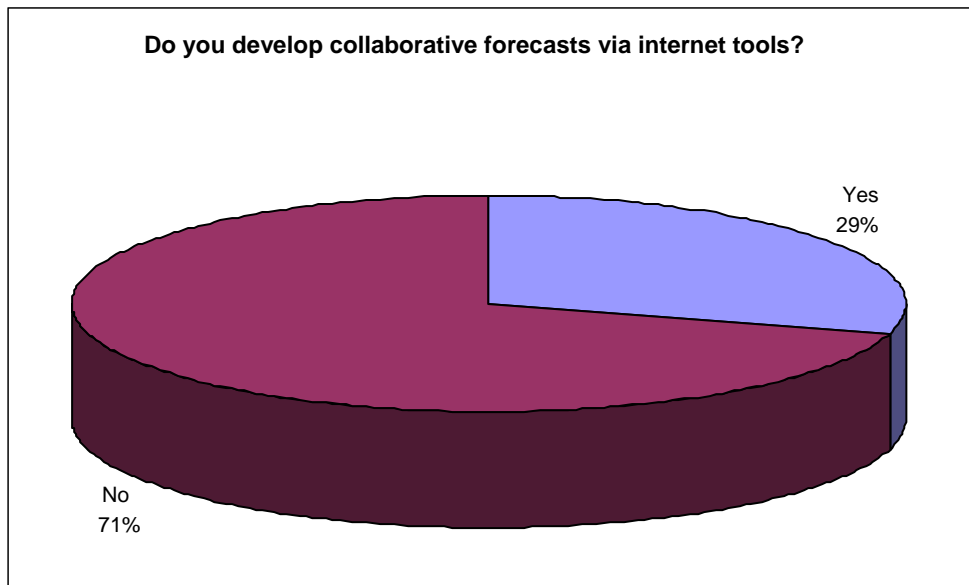


8.6 MANAGING NEW PRODUCTS



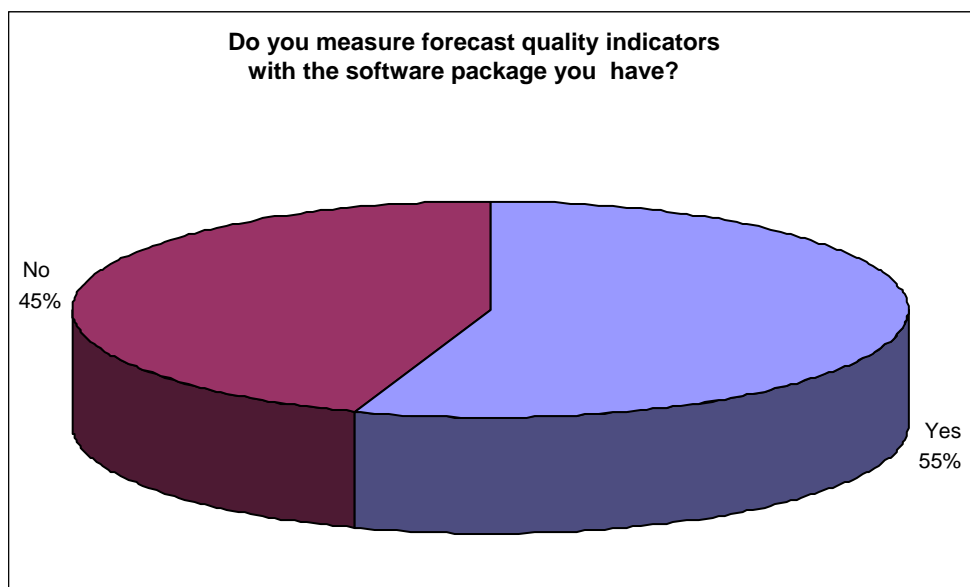
- 66% of respondents calculate new product forecasts with the help of the software package

8.7 COLLABORATIVE FORECASTING

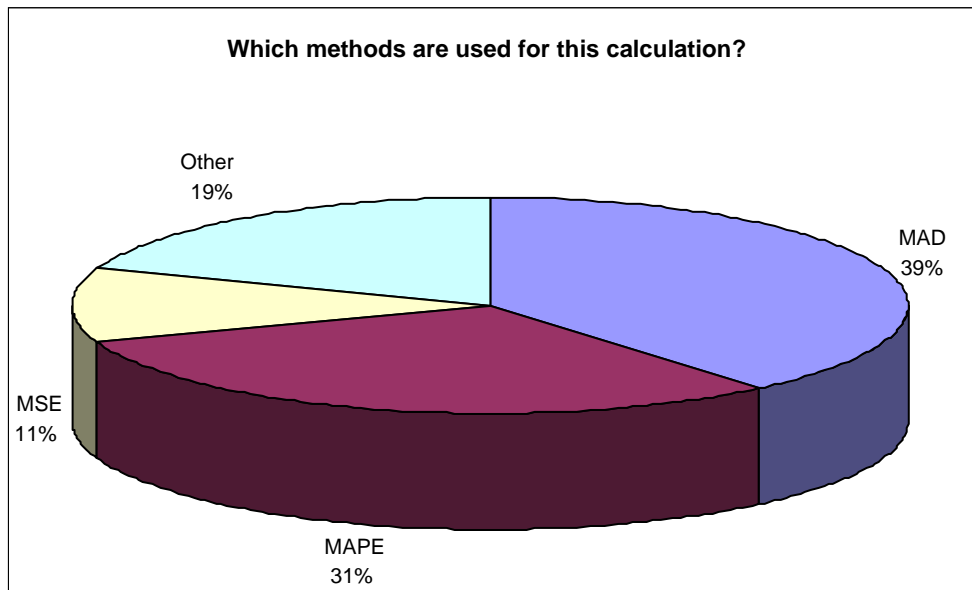


- Only 30% of respondents use collaborative forecasts via the internet
- Despite considerable progress in recent years among software developers, this concept is not as well developed among the various organisations surveyed

8.8 PERFORMANCE INDICATORS

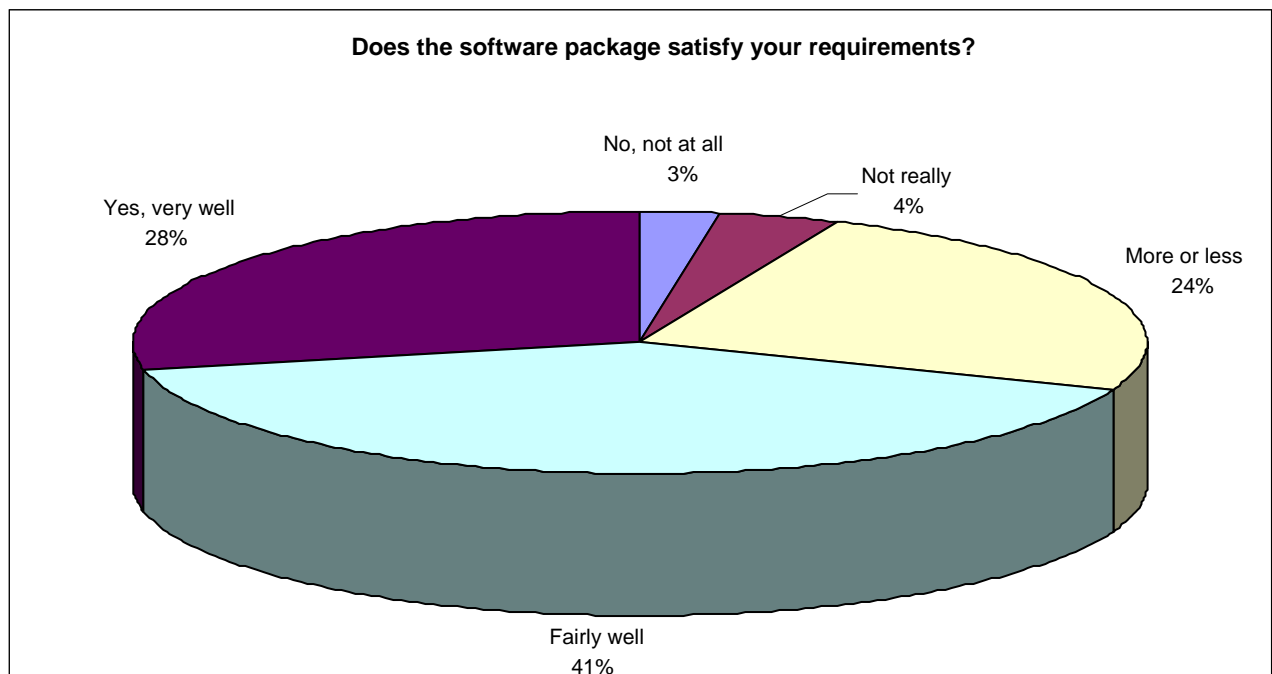


- Only 55% of respondents calculate performance indicators in the software package
- The main indicators used are MAD (Median absolute deviation) and MAPE (Median absolute percentage error)



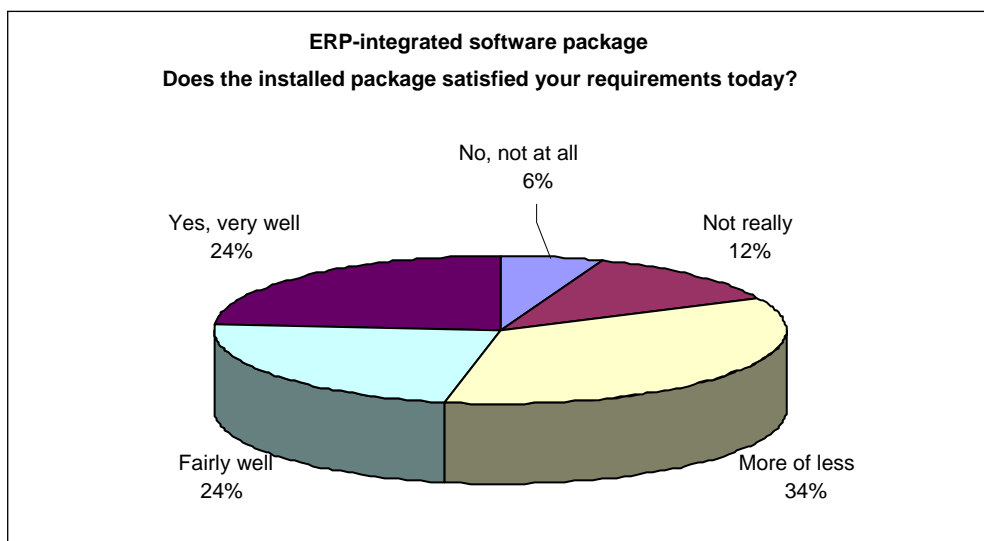
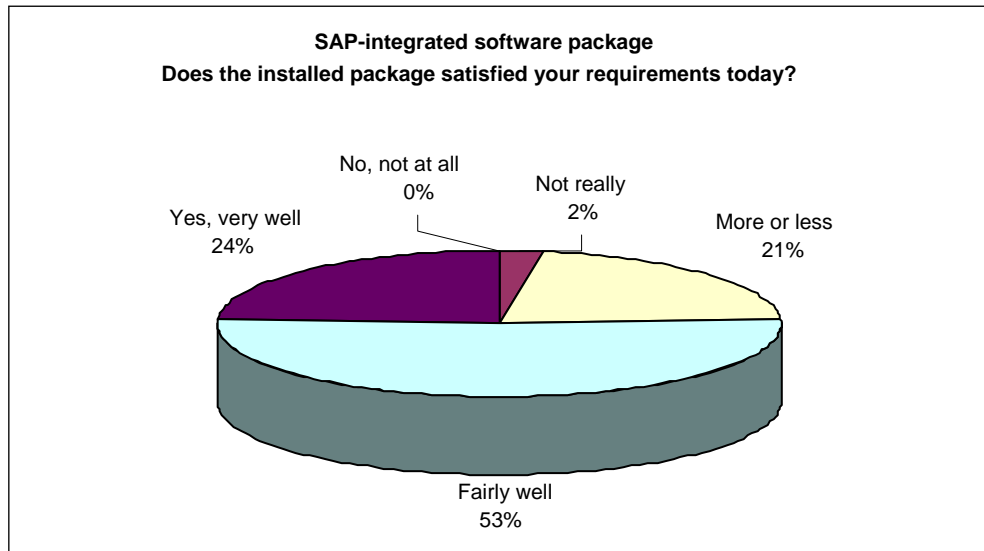
9 SATISFACTION

9.1 MEETING THE NEEDS OF THE ORGANISATION



- 69% of respondents are generally satisfied with their software package
- Only 7% of respondents are not or not really satisfied with their software package

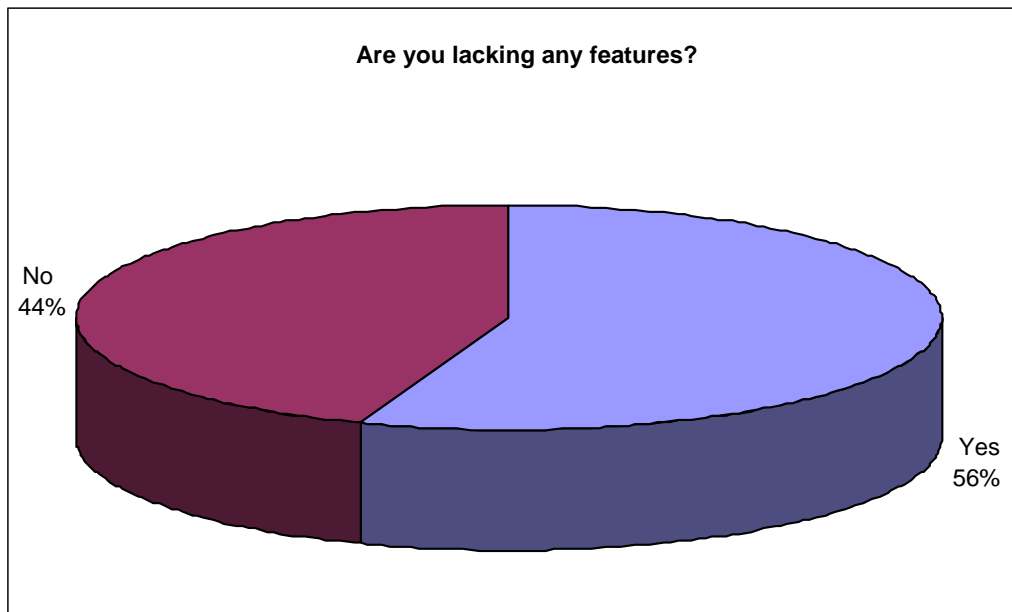
77% of the people who had installed a SAP-integrated software package claimed that it generally satisfied their requirements quite well. Only 2% of such respondents claimed it did not.



On the other hand, in the case of forecasting software integrated with an ERP, only 48% were satisfied with the solution. Moreover, 18% of respondents who had installed a software package integrated with an ERP claimed it did not satisfy their requirements.

With regard to the other categories, the number of responses was insufficient to draw any conclusions.

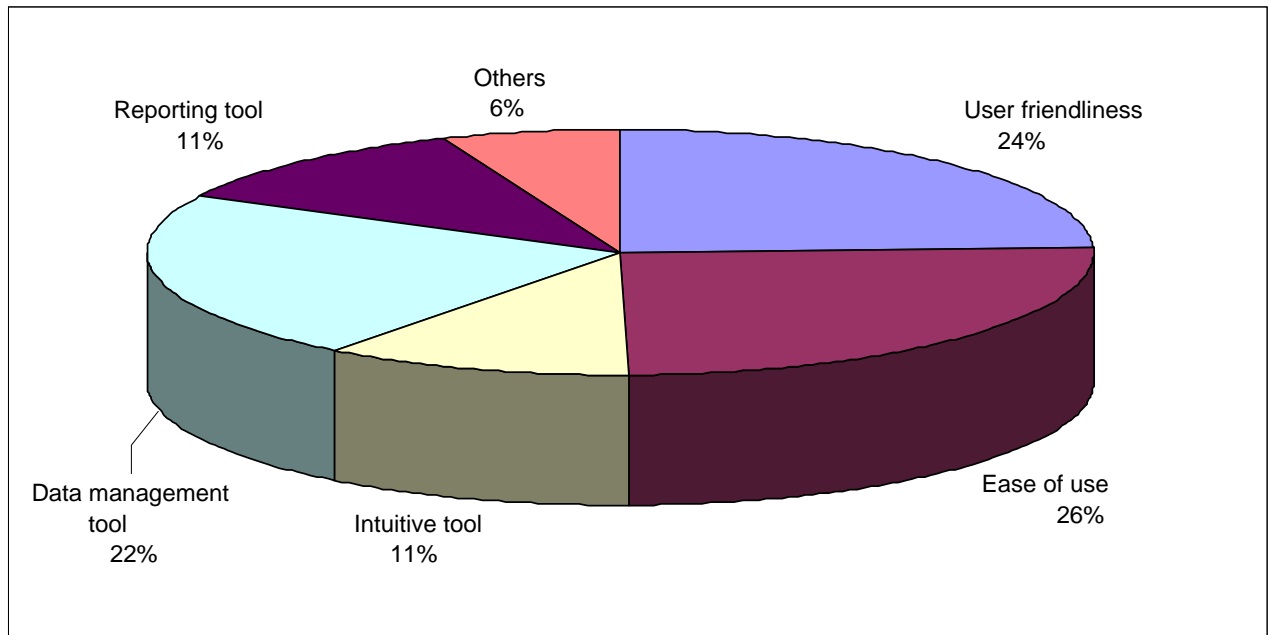
9.2 FEATURES LACKING



- More than half the respondents claimed to be lacking certain features
- The main features lacking are classified according to the table below:

Speed / Interactivity	4	11%
New Products / Replacement	4	11%
Reporting / User-friendliness / Ergonomics	6	17%
Special promotions and events	2	6%
Forecasting models: adaptation and functioning of profile, better methods more methods	6	17%
Cooperation	6	17%
Others: filters, price management, tool adapted to fashion sector; hierarchy, weather, nomenclature	7	20%

9.3 SATISFACTION CRITERIA



26% of respondents claimed to appreciate the software's ease of use the most.

24% considered user-friendliness to be a criterion of satisfaction in the software package they are using

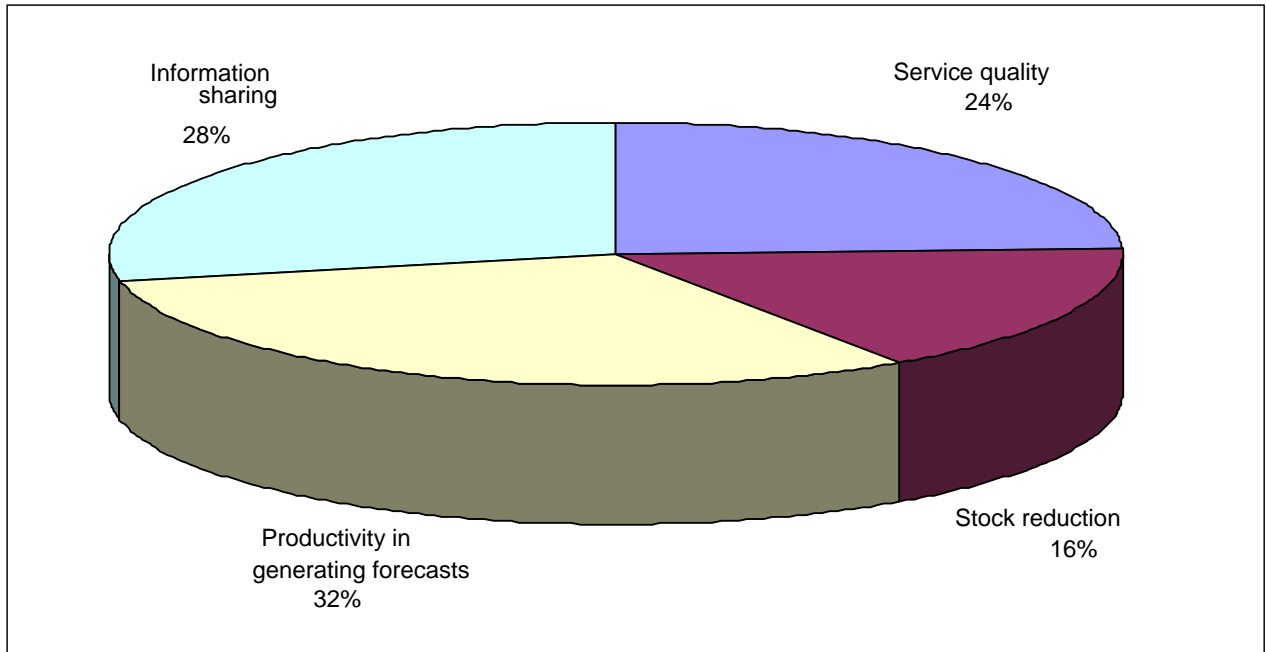
22% are satisfied by the management tool offered by their software package

11% claim to appreciate the fact that their software package is intuitive and includes a reporting tool

Other criteria cited were:

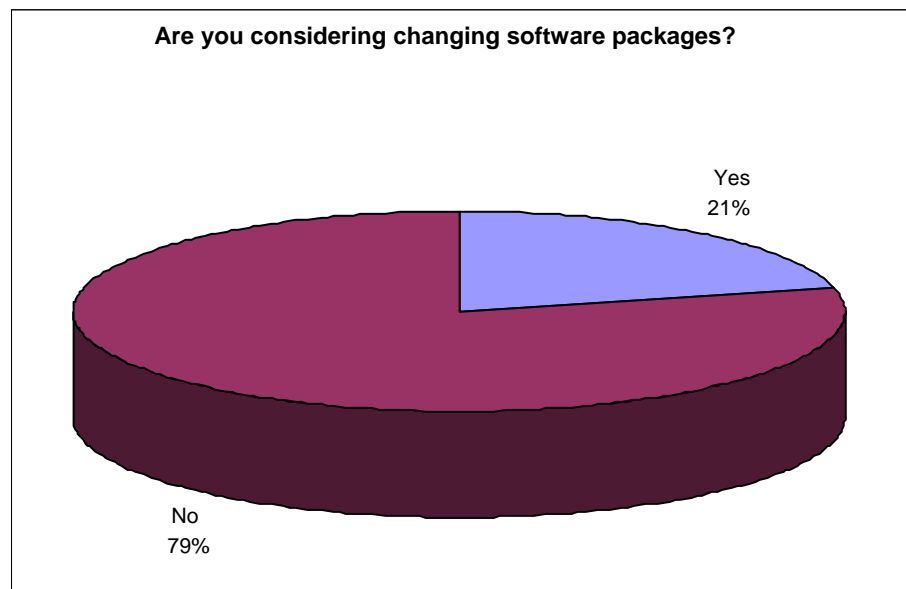
- Extrapolation software
- Integration of active data
- Efficacy and reliability
- Integration in SAP
- It's software
- Process automation
- Simulation capability
- Speed of installation

9.4 IMPROVEMENT CRITERIA

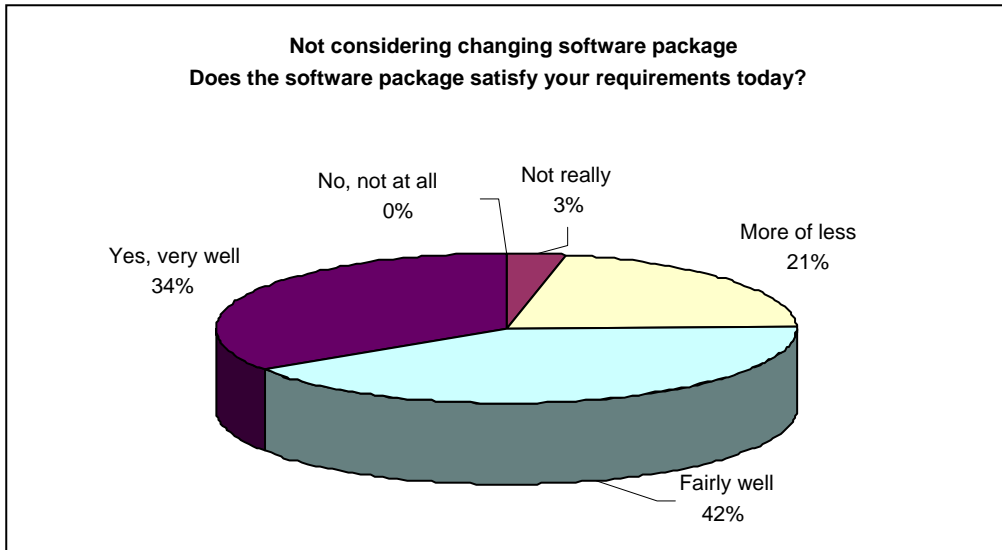


32% of respondents find productivity in the generation of forecasts to be the most important improvement observed after the installation of the forecasting package. The second most common improvement observed was the sharing of information (28%). The criteria “service quality” and “stock reduction” came in last in terms of observed improvements.

9.5 DESIRE TO CHANGE SOFTWARE PACKAGES



- 79% of respondents are not considering changing
 - 24% of those who are not considering changing software packages are more or less to quite satisfied with their software package



10 CONCLUSION

This analysis demonstrates the importance of installing a forecasting software package. Actually, 69% of respondents claimed to be satisfied with the software package they had installed.

This analysis proved to be difficult in compiling responses and in evaluating the relevance of the responses received. Moreover, it was very difficult to make correlations between them. For example, it was not possible to deduce trends in the various individual sectors.

11 CONTACT

MÖBIUS
 12 rue La Fayette
 75009 Paris
 Tel : 01 49 49 08 10
 Fax : 01 49 49 08 11
www.mobius.eu

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 Conseil Ciblé, Bénéfices Mesurables.
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