

Petteri Metelinen

NEW SOFTWARE AT AUTOTALO PELTTARI - IMPLICATIONS AND
USER EXPERIENCES

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Metelinen, Petteri

Satakunnan ammattikorkeakoulu, Satakunta University of Applied Sciences

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Supervisor: Stenfors, Juha

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The purpose of this thesis is to explore the influences of a recent software replacement that has taken place at Autotalo Pelttari in the beginning of 2013. Special emphasis is given on user experiences of the software. How did the employees find the new software and did it meet the expectations it was set for? What was better in the new system and on the other hand was there something that went wrong when compared to the old software?

The positive and negative aspects of the software replacement are discovered and further examined. Solutions are sought to improve the software and its user experience. Key features of the new software are discussed and compared to the old system. Financial impacts of the new software are also taken into account.

User experiences of the new software were gathered from the employees by a questionnaire and by interviewing the staff. The findings are then processed by applying theories related to usability and user interface design. Solution proposals are given for problems found and recommendations for future development presented.

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1 INTRODUCTION

1.1 The purpose of the Thesis

The purpose of this thesis is to find out what kind of influences does a new software have in the case company, how does it benefit Autotalo Pelttari and what kind of problems there might be. I will find out what are the users' opinions by a questionnaire for the staff and I will also see how the new software performs its tasks compared to the old.

It is agreed that in this thesis I will not use the real names of the involved software companies. Instead of their real names, I will refer to them as companies X, Y and Z. When I refer to the software I will write about the new and old software. The new software means company Z's programs and the old software means company Y's programs. The software company X is the provider of Autotalo Pelttari's ERP system.

1.2 About Autotalo Pelttari

Autotalo Pelttari is the marketing name for the two family companies, Pelttarin Auto Oy and Kakkostien Auto Oy. There is a long history of entrepreneurship in the Pelttari family since the early 1900s. Pelttarin Auto Oy was established in 1958 in Äetsä. The business started with car maintenance and selling used cars but already in 1965 a service station and the selling of new cars came along. Kakkostien Auto Oy was established in 1982 and the business started in 1990 in the new premises by Valtatie 2 in Huittinen. The activities in Äetsä were discontinued and the car sales and maintenance were moved to Huittinen during the 1990s. In 2006 the company expanded to Pori.

1.2.1 Autotalo Pelttari today

Nowadays, Autotalo Pelttari, led by Jukka Pelttari, sells new and used cars and provides car maintenance services in Huittinen and Pori. In Huittinen, Autotalo Pelttari sells Toyota, Citroën, Fiat and Jeep. The company also has authorized mainten-

ance for Hyundai, Suzuki, Isuzu, Chrysler, Dodge and Alfa Romeo. In Pori, the company sells Alfa Romeo, Fiat, Hyundai, Suzuki, Isuzu, Renault and Dacia. Authorized maintenance services for Chrysler, Dodge and Jeep are also offered in addition. Autotalo Pelttari has 35 employees of which 10 in Pori. In the year 2012 the total sales were 1711 cars (524 new and 1187 used). The maintenance assignments totaled altogether up to nearly 8000 assignments in 2012. The total turnover reached to 22,4 million euros.

2 THE SOFTWARE

There are multiple software needs in this car-related field of business of Autotalo Pelttari. Autotalo Pelttari uses an Enterprise Resource Planning (ERP) system bought from company X as the foundation of their IT. This software has been in use for several years and the employees are accustomed to it. It is rather easy to use after learning the basic controls but it also has its peculiarities. The visual appearance is very simple. It features only black text on white background and the overall look stays the same in all the different sections of the program. The software contains all the main business functions daily needed in the company. It includes for example ledger, payables and receivables, customer databases and inventory management for the spare parts and the cars. The car deal contracts are also made and printed through this software. However, car sales, car maintenance and spare parts each need their own special software in addition to this ERP that is common to all. In this Thesis I am going to concentrate on the two specific software of the car sales side that were replaced with new ones, the modeling and the stock management software.

2.1 Definition of modeling and stock management

Modeling is the process of evaluating a used car, all the way up to the pricing of the car. This process typically includes four basic steps: Acquiring the basic information of the car, adding the information about the accessories and special features, estimation of fixing and repairing costs and the making of a price estimation. This process is carried out every time when a car dealer is about to buy in a used car. The most

typical situation is that the customers offer their old cars in exchange for the new ones.

Stock management software has the list of all the used cars that a car dealer has. This is the software which is in charge of advertising the cars. In this software the user can choose which cars are to be shown in various internet portals. In stock management the basic information of cars will be updated with pictures. Also the names of accessories can be abbreviated to be suitably short for advertising in limited space in a newspaper, for example air conditioning shortened to AC. After these kind of modifications, the car's digital profile is ready to be sent for example to newspapers. The price tags of cars are also printed out from stock management.

2.2 Modeling and stock management software at Autotalo Pelttari

There are two major service providers in this particular field, Y and Z, that offer this kind of car modeling and stock management software for car retailers. Autotalo Pelttari has been using company Y's software until January 2013 when they replaced it with the equivalent package bought from company Z. In addition to this, a management reporting software was bought at the same time to complement the basic software. It offers the management reports, forecasts and for example information on each individual salesman's performance.

The sales negotiations with company Z were convenient and went smoothly because of the familiar sales manager. The sales manager from company Z had previously been working in company Y and he had also sold the previous Y-software to Autotalo Pelttari. This way the sales manager already knew Autotalo Pelttari as a company from years ago and he had established a business relationship with the company. As the sales manager had previously been working at company Y, he knew very well the software Autotalo Pelttari was using. It was easy for him to bring out the differences between the competing software, but of course from his point of view as a salesman.

2.3 Software characteristics and the assumed advantages of the new software

The salesman pointed out several good features and tricks that the new software includes and got the management of Pelttari convinced about the positive sides of the software replacement. The new Z-software should reduce workload in many ways and the reporting to the management should be on a totally new level as well as statistics. The software gathers for example report data about estimated/realized expenses on cars and information on the performance of each salesman. It also has a better way of managing logos in the pictures when advertising cars. The Z-software offers also many types of price tags to be printed for cars, for example tags that include offers of certain finance companies. Test drive permits can be made and printed straight out of this program, which saves time. Previously they had to be printed through the separate ERP- system. A great new top secret feature was also promised to appear soon in the software. Choosing this software also makes Toyota satisfied because the Z-software is recommended by Toyota.

2.3.1 The new way of pricing

The most important and notable difference should be the car pricing part. This is where the new software should have the greatest advantage over the old one that has virtually never been used. In pricing, the new software takes into account the residual value of the possible expensive accessories of the car, for example a leather interior or xenon-headlights. The salesmen are also getting much more inside information to support the pricing. The software shows also the cars for sale on Autotalli.com and on Nettiauto.com, including the sales announcements of private individuals. Some of the big car dealers in Finland are not on Nettiauto but most of them are still shown because they belong to company Z's massive database. This eliminates the need to go to Nettiauto and see the market situation there because those cars and many more are visible in the Z-software.

The software also shows all the car price changes made and what was the original price that was set. The Z-software lists the cars in the order of undervalued/overpriced instead of the conventional way of showing them from the cheapest car to the most expensive car. The Z-software features a display of statistical facts by locations too. The salesman can see for example how are certain cars priced in Tampere region

and so on. The vast statistics of the Z-programs enable the salesman to show the client for example how the pricing goes and what is the fact-based realistic market price for the customer's car. The software shows also price and selling time history with a graph presenting the price and demand. This facilitates to justify the customer for example the poor compensation of his old car. The pricing software shows also a list of cars that have been in stock for too long a time for the region average and the cars in which the contribution margin has turned negative. The Z-software is also claimed to have the broadest pricing basis and statistics.

3 RESEARCH

3.1 Questionnaire for the personnel of Autotalo Pelttari

To find out the general opinion on the new software and its functionality among its users, I made a questionnaire for those who use the new programs in the company. I prepared an initial version of the questionnaire and in the discussions with the managing director of the company we decided the final form of it. The language of the questionnaire was Finnish and it consisted of twelve claims printed on a single A4. For this thesis I also translated the questionnaire into English. The claims handled matters that were mainly related to user experiences about usability and functionality of the new software compared to the old. The answering options had a range from one to five and the options in order from number one to number five were the following: Totally disagree, somewhat disagree, neither agree nor disagree, somewhat agree and totally agree. The questionnaire was conducted after the new software had been in use for about three months. It was assumed that the respondents will answer honestly and express their own opinion. However, as I am not working at Autotalo Pelttari or at any of the software companies, it might be that the respondents expressed extreme opinions more freely. I got nine responses as planned. The respondents included seven car salesmen, one secretary and one car sales assistant.

3.2 The results of the questionnaire

The results of the questionnaire are summed up in Appendix-1. The more detailed distribution of the answers is being demonstrated there, statement by statement. The questions of the questionnaire were divided in three groups. Questions 1, 2, 3, 4, 5, 6 and 9 are about usability and user experience. Questions 7 and 10 deal with the features of the software. Questions 8, 11 and 12 are related to the actual functionality of the software. Two of the user experience-related questions are presented below as pie charts.

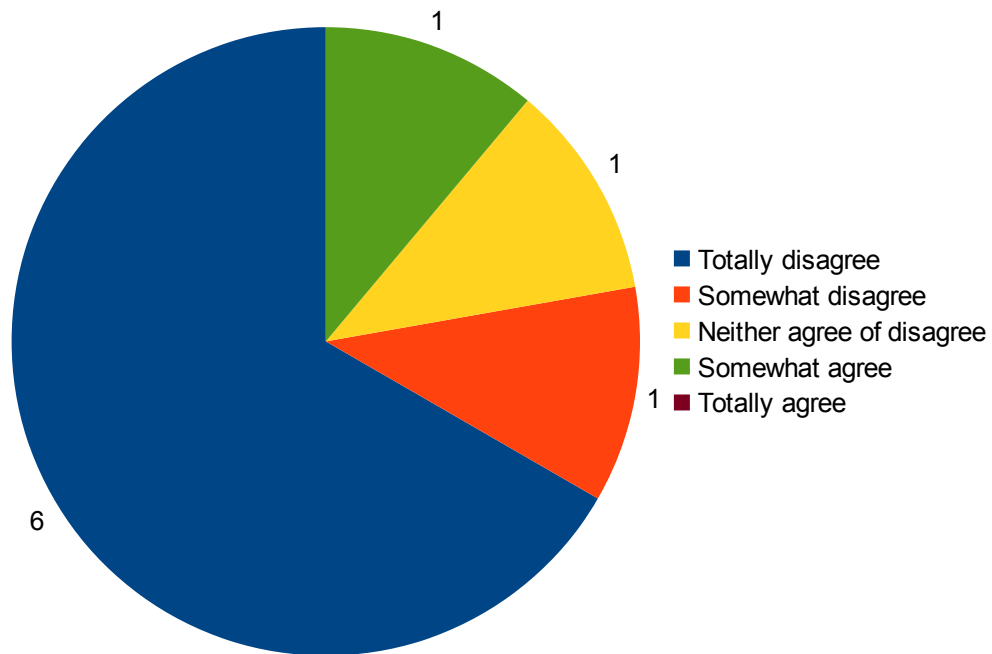


Figure 1: Question number 2. “The new software requires less mouse clicking than the old one”

These answers reveal how most of the users feel that the new software demands more mouse action compared to the old system.

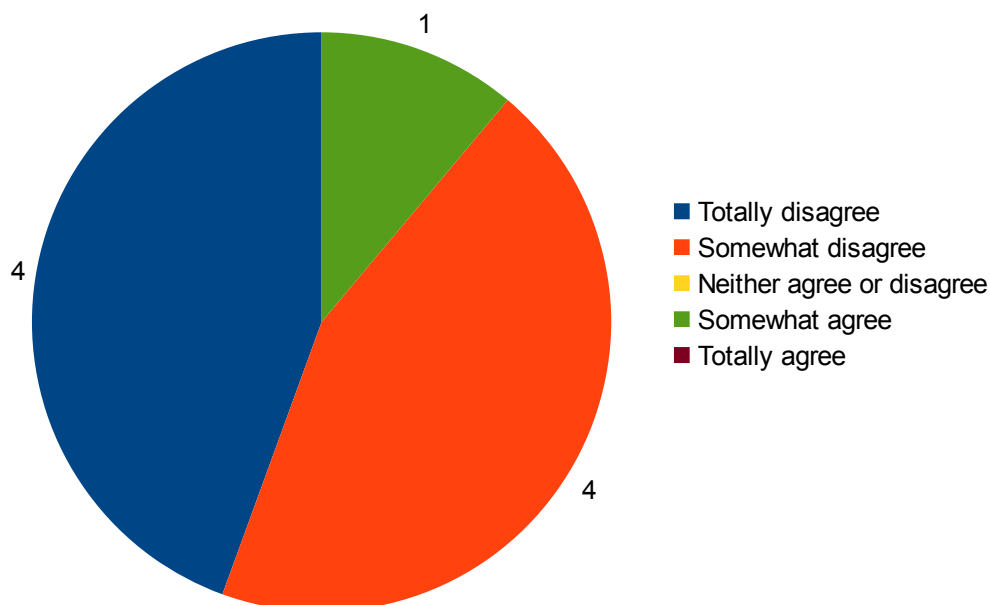


Figure 2: Question number 3. “The new software is smoother and more simple to use compared to the old”

These results correlate with the findings of the previous question that reveal the increased need of mouse clicking in the new system. Most of the users feel that the new system is not that smooth or simple to use compared to the old.

3.3 Analysis of the questionnaire

Based on the informal discussions that I had with some of the employees, I was prepared to receive quite negative evaluations of the new software. It seemed that the personnel was not very satisfied with the new software. There were some good aspects in the new software but most of the comments weren't very flattering. The results of the questionnaire proved this assumption to be correct. The general opinion of the new software seemed to be fairly negative. However, there were several underlying reasons why people felt this way. After being three months in use, it's not all about the software itself being good or bad. The implementation of the software and the inevitable period of learning to use the actual software partly made the users feel that the new software is not as good as the old one. After using the software for about a year, the positive aspects of the new software started to appear and the usage of the

system was panning out. (Paloviita, personal communication on 3.2.2014) Nobody masters a new system when it is just introduced and its use can be frustrating. It takes time to adapt to new ways of doing things and to understand how the new type of process works.

Another reason that explains this grudging reception of the software is resistance to change among the employees. When a company changes its strategy, ways of doing things, software or when other significant things are about to change, it is very common that employees will react negatively to new things. Change is always associated with loss. People have to let go of things they have learned to do and are confident of doing. (Harvey & Broyles 2010, 24.) The employees would like to stick to the old, safe, trusted and well tested methods. This is mostly because the employees are afraid of the upcoming change and are unwilling to change their manners and routines. They feel that the current way of doing things works just fine and there is no need to change anything radically. They have once learned the ways how things are done and they do not want to throw all that in the garbage and start adopting new ways that feel uncomfortable and insecure at the point of stepping into unknown. One big factor that influences a lot to the success of a software is of course the actual features that the software has. If the program has not got all the needed functions, it most likely will not be able to perform well enough.

3.4 Financial impacts of the new software

Besides the questionnaire and usability I looked at what kind of impact the new software has on some of the company's financial figures compared to the time when the old systems were still in use. The new software had been in use for about 17 months now. The new software facilitates the price comparison between cars and the buy-in prices are better in control. There is also a feeling that offers realize as deals more often. The new software enables a more accurate price setting, which should help in shortening the average selling time of cars. Still, the stock circulation is too slow (Peltari, personal communication on 14.3.2014). However, the more precise cost estimation of used cars makes it possible to gain sometimes higher profit margin. On the other hand, the software license is much more expensive than the old one. The new software costs approximately 2-2,5 times more than the old. It contains sophist-

icated features and statistics providing value for money but the price is still high, especially for smaller car dealers.

Due to the nature of the business, it is difficult to estimate the actual financial impact of the new software. There are many factors influencing the car market. The overall economic situation has not been good resulting to cautious consumer behavior. This has especially influenced the sales of new passenger cars and vans. When looking at the car registration figures, the year 2013 was poor in Finland. Only 103 450 new passenger cars were registered. That is seven percent less than last year. Excluding the finance crisis year of 2009, the sales haven't been this low since 1996. The situation with registrations of new vans is quite the same, only 10 405 vans were registered in 2013. That is 9,3 percent less registrations compared to the year 2012 (Website of Autoalan Tiedotuskeskus 2014). Autotalo Pelttari's new car sales went also down with over one hundred cars in 2013. However, the sales of used cars boosted up a little (Pelttari, personal communication on 14.3.2014). The question and demand of cars fluctuates constantly but generally there is one strong trend that will most certainly continue on. Fuel efficient cars that have low emissions will always find their buyers. This trend is strongly driven by the high gas prices, tightening emission regulations and taxation that favors low emission cars.

4 IMPROVING THE USER EXPERIENCE

It is evident that designers want to develop user interfaces that are of high quality and serve the users in the best possible way. Achieving this requires consideration of several things such as thorough planning, deep understanding of user needs, commitment to serving the users and assiduous testing.

Successful user interfaces make the users feel competent and effective and the users will have a positive feeling of mastering the interface. The users are aware of how the software will respond to their actions and it almost feels like the interface would disappear. These kind of interfaces also are often copied by other developers.

To be able to develop a truly effective user interface, there are some requirements to be met and goals that should be achieved. Firstly, it is to be determined what kind of tasks the users need to perform. The basic, frequent tasks, seldom performed tasks, exceptional tasks etc. It is important to conduct a task analysis because the users get easily frustrated with a deficient interface which could lead to rejecting or underutilization of the interface. If the functionality of the software is insufficient, even the greatest user interface can't compensate that.

It is also crucial to ensure the reliability of the software. The actions in the system must function as desired, correct data must be displayed and updates must work properly. There is no room for errors since one bad experience with a software will have a long-term effect on a user's willingness to use the software. The software, hardware and network must provide a high level of availability. Again, even the greatest interface can't compensate if the software is not available. Privacy and security must also be ensured to avoid for example malicious attacks and unintentional data deletion.

When having lots of users and several software packages, standardization starts to matter more and more. There should be similar user interface features across several applications. For example, The International Organization for Standardization (ISO) produces many standards related to usability. Differences in user interfaces may lead to serious errors and it takes time to adapt to the small differences between the interfaces. Bigger differences strain the users and substantial amounts of time must be used for training.

Compatibility can turn out to be an issue as well. Incompatible hardware, software and formats cause major trouble. When formats are used coherently, the users can use several different software to modify the data in the files. Portability should also be taken seriously when developing an interface. The user interface should work properly in several different conditions with many variables such as different screen sizes, resolutions, pointing devices, data formats and operating systems.

By following proper usability principles and practicing thorough testing, the interface needs less changes when it is being implemented and later on it avoids expensive updates. (Shneiderman & Plaisant 2004, 12-14)

5 FINDINGS ON THE SOFTWARE

5.1 Satisfaction and users' memory load

Satisfaction belongs to the components of usability in Jacob Nielsen's definition. The software should be convenient to use, making users pleased when using it. (Nielsen 1993, 26). The users of the new software at Autotalo Pelttari are nowadays satisfied with the functionality and end results of the evaluation and pricing software but they are not totally satisfied with the user experience. When using the evaluation and pricing software, the users have to move from tab to tab to proceed. Each tab must be saved after completing. How to remember to save the tabs was major concern that caused trouble especially in the beginning when the new software was recently introduced and the users were not yet used to the constant saving. Nielsen (1993, 129) stated that computers' memory capabilities should be used to lessen the users' memory burden as far as possible. In this case it should be possible for the user to move straight, without separate saving, to the next tab after completing the previous one. The computer could interpret the step of moving to a next tab as a sign of completion and the tab would be saved automatically. This would at the same time reduce the amount of futile mouse clicks.

5.2 Feedback

The issue with saving the tabs involves also a problem with feedback as the software doesn't give a clear sign to the user that the tab has been saved. This is clearly against the principles of Nielsen's usability heuristics as the software should all the time keep the user aware of what is going on in the system by suitable feedback that is given in reasonable time (Nielsen 1993, 134-135). This issue can be corrected simply by

adding the missing confirmation of saved data. Shneiderman and Plaisant (2004, 74) also emphasize the importance of system feedback for every action that a user performs in the software. While the most significant, rarely occurring actions should be given more prominent feedback, the less important and often repeated actions can be dealt with moderate one. In this case, the software could for example display a "tab saved" text for a short while on the screen. The tabs that have already been saved might also change color slightly to visually indicate their status as completed.

5.3 Error recovery

It should be possible to undo the actions that a user has done in the software (Shneiderman & Plaisant 2004, 75). In the process of evaluating a used car, the user has to choose the model of the car. After the registration number of the car is fed in the system, the software searches the database of Finnish Transport Safety Agency and then displays all the possible model variants of the car. Sometimes there are so many more or less different models available that it is difficult to choose the correct one from the list. However, if the user notices that he or she has chosen a wrong car model, the system allows the user to change it. This action is facilitated by a dedicated function called "model change".

5.4 Manuals

Many users learn to use a new user interface with the help of another user who is already familiar with the system. Some users simply learn by trial and error. Usually the user manuals and other kind of guides are left untouched until the user gets stuck and can't proceed with his/her task. When a user encounters such situation, a properly drafted user manual may be useful. (Shneiderman & Plaisant 2004, 522.) The Z-software contains an online user manual that can be downloaded as a pdf- file from the software. To ease the navigation, it is equipped with a table of contents. The manual provides for example step-by-step instructions illustrated with screen prints for the car evaluation process. The terms and language used in the software should be familiar to the user and system-oriented terminology should be avoided (Nielsen 1993, 20). Some of the specific terms that are used in the software are also explained in the manual. Although the terms used in the software are quite descriptive and easy to understand, it is good to have the reminder available.

Adding a frequently asked questions-menu in the software could speed up information seeking in the most common problem situations. The user could save much time by checking the FAQ and finding the solution there instead of opening the bigger manual and searching it through.

Online manuals have many advantages. The manual is available when the computer or other device is available. This saves time and effort since it eliminates the need to find the physical manual that may be outdated or, as many users tend to lose the paper manuals, even lost. An online manual can easily be updated. When a new version is released, it replaces the old one and no outdated material will be available. Online manuals do not occupy any physical workspace leaving the desk free for more important things. Fast navigation is possible if the manual contains for example indexes and a table of contents. It is also usually much faster to find a specific page from a large manual that is in a digital form on computer compared to a paper manual. Online manuals are also more cost-effective to distribute than printed paper manuals. (Shneiderman & Plaisant 2004, 525-526.)

Nonetheless, there are also several disadvantages of having an online manual instead of a paper version. The readability of displays is often worse than paper manuals. Reading from displays can cause visual fatigue and stress. However, resting, frequent breaks and performing alternative tasks will help to manage with this issue. With displays, there are also problems with unclear fonts and insufficient contrast. Glare emitting from the display might be disruptive, as well as possible reflections if the screen's surface is very glossy. In many cases, the position of the screen is fixed and not optimal. This can bring out problems when adjusting reading distance, which is easy when reading from paper. Usually the screens are also placed too high so that it is not possible to read eyes looking downwards as it is suggested.

Especially small displays can contain significantly less information than a paper sheet. This increases the need of continuous page turning which can be disturbing. The usage of an online manual is also problematic when the screen is splitted between manual and work. Work space becomes limited and the size of manual is re-

duced. Switching between the manual and work is another option but this stresses short-term memory and the users may get distracted from the context of the actual work and forget easily the information that they read in the online manual. Large, high-resolution displays can still offer a potential solution for several of these problems (Shneiderman & Plaisant 2004, 526-530.)

5.5 SWOT

5.5.1 Strengths of the new software

The modeling and pricing functions are absolutely the biggest strengths of the new software. This is where the new software excels compared to the old one. The emphasis is on precise cost management that enables better predictability of a car's price. Several variables and statistics are taken into account in pricing and the software has lots of useful features compared to the old software. Another strength is that there isn't many serious competitors on the market. The company Z has developed vast statistics over the years and it provides the broadest pricing basis. These features are very hard for any competitor to achieve as company Z has already gained a solid reputation among most of the biggest car dealers in Finland.

5.5.2 Weaknesses

The software has some hindrances in the user interface. The interface is generally more complicated to use than the old one. It has several tabs and each of them requires to be saved by the user, which turned out to be problematic in the beginning and by time has become frustrating. Also the stock management lacks certain useful and time saving features that the old software had. The pace of updating and getting improvements to the software is rather slow too.

5.5.3 Opportunities

The company Z should keep developing their software and offering frequent updates. The company Z should also carefully listen to Autotalo Pelttari's needs and wishes to improve the software into desired direction. By implementing this pattern, the user experience will be enhanced and the software will inevitably start to evolve to meet the needs of Autotalo Pelttari even better.

5.5.4 Threats

It would be a major issue for Autotalo Pelttari if company Z neglects developing the software and does not take Autotalo Pelttari's improvement suggestions seriously. If the price of the software license rises too much, it could drive Autotalo Pelttari to seek for cheaper software solutions. However, a change of software would be very unlikely in the near future since there are no real options if not going back to company Y's cheaper software. A new implementation and learning period would also be very frustrating for the workers that have just adapted to using the new software.

6 SUGGESTIONS FOR FUTURE IMPROVEMENT

6.1 Tablets

Nowadays a car salesman needs to print out an evaluation card when he is going to evaluate a customer's car. The salesman goes out to see the car and makes notes on the paper card. After returning to the office, the salesman must enter the same information that he got on the paper again in the software on his computer. This procedure is problematic because it includes unnecessary double work that takes extra time and effort.

The problem with double work could be avoided by using a tablet when evaluating a car. A digital version of the evaluation card would be displayed on the tablet's screen. Instead of the printed evaluation card, the salesman could go outside with the tablet and fill in the information digitally. This way the paperwork would be eliminated and the information can be transferred in the software straight away, wireless from the car that's being evaluated. This would require company Z to develop a tablet application and an extension to the actual software to enable the on-line tablet evaluations.

Even the whole evaluation and pricing process could be carried out on a tablet device if the company Z would develop a full tablet version of the entire software. The relatively small screen size of a tablet might still keep most of the salesmen in using a desktop computer for the rest of the process. This could still be something that the

most technically oriented salesmen would like to try. Using tablets would also give more modern image for the company.

6.2 Feedback section

According to car salesman M. Koivisto (personal communication on 7.3.2014) there is no possibility to give feedback in the software. If a user has something software-related in mind that he would like to convey to the software developers, he must contact the software company either by e-mail or phone call (Peltari, personal communication on 14.3.2014).

It would be simpler and faster for the software users to have a dedicated place for feedback and improvement suggestions in the software. This would lower the threshold of giving feedback and make sure that good ideas don't get forgotten as it's possible to give the feedback instantly after having an idea or noticing something. User feedback is a useful field information source for the software provider. User feedback is a continuous, user-oriented process. The feedback springs from the actual concerns of the users and it rapidly reflects the changes in users' opinions and needs. Of course, it is crucial that the system provider is willing to listen to the feedback. The users should also be made to feel that their feedback is important and taken seriously. The system provider should respond the users actively, even if it is only to tell that nothing can be done for the issue at that moment. (Nielsen 1993, 221-223)

The feedback section could be for example a small box or button at the side of the page or in a corner where it doesn't interfere with main functions of the page. The feedback box or button could be visible on every tab of the software and when a user clicks on the button, it would expand to a larger field where the user can write his/her thoughts. The box could also be interactive so that the response from the software company would also be shown there.

7 CONCLUSION

The new software lives up to many of the expectations that it was set for. It performs well with the expenses of cars and in pricing. It gives the user a clear breakdown of the expenses and shows the contribution margin of the car immediately. At first the pricing software seemed to give out strange prices but nowadays the given prices are quite rational and in line with the common practice. The new software aims at getting higher contribution margin from the cars by concentrating on the repair expenses. When buying a car in, the car salesman must fill in a detailed form about the car's current condition. With this form the salesman can not only list the accessories and features that the car has but also list all the defects that the car might have. It is crucial to spot the possible defects of a car at this stage, since these will have a great impact on the car value. For example if the tires are worn, the windshield is cracked or the car has some other damage that requires bodywork, the salesman can instantly evaluate the repairing costs of each defect on the form and the software will take the estimated repair costs into account when issuing the offer to the customer.

Another useful advantage of the new pricing software is that it also reveals the three most common defects of each car model based on car inspection databases. This kind of special information enables the car salesman to pay better attention to every used car and it helps to avoid expensive surprises. If a salesman has done an evaluation of a car without seeing it, for example on the telephone, he can choose this option on the computer. Then the software remembers that this car has not been seen yet and it needs to be checked before closing a possible deal. The new software also reveals if a car that is being offered to Autotalo Pelttari has already been evaluated before. It shows the salesman who has evaluated the car and what has been his offer of it if an offer was ever made. This makes it possible to ask a fellow salesman about the reasoning behind his offer and it also prevents the competition between the salesmen.

However, some of the usability benefits of the old software were lost. The new software proved to be more complicated to use from a car salesman's perspective. The constant need to click the save-button on each tab of the new system was perceived negatively. As the old software was constructed in a way that it did not require such

an action, it was found very easy to forget to do the clicking on save and therefore information was easily lost. This still remains to be the biggest problem with the user experience of this new program. Automatic saving or some kind of autosave function would probably fix much of the problem. The new software also contains significantly more tabs that the user must go through to proceed. This does not make the software easier or faster to use. According to the managing director J. Pelttari (personal communication on 4.9.2013) one click in the old software equals approximately five clicks in the new one. Also, the software does not give a clear sign to the user after a tab has been saved and therefore leaves the user in uncertainty.

The old software was perceived to perform better with the stock management, when it comes to managing the cars on computer and advertising them. The old software moved the new cars added to the system instantly on display to the internet. It also showed the cars that are inactive, not for sale and not visible in the internet, on the same tab. Now when adding a new car to be visible in the internet, the user must first go to the tab of inactive cars and change the cars status from there. This is a small but time consuming procedure which company Z could almost certainly fix simply by modifying some default settings of the software. One key feature missing from the new software is that the old system allowed the user to establish car categories. For example, it was possible to group the cars in passenger cars, vans and trucks. Therefore it was easier to manage and keep track of different kind of cars. When advertising the cars in newspapers, this categorizing feature made it easy to pick up and send for example only vans' information for a specific van newspaper advertisement.

All in all, the actual functionality of modeling and pricing seems to be the best feature of the new software and it is a great improvement to the old software, as it was expected. However, there are some slight drawbacks in the user interface that should be corrected to make the software smoother to use. There are also certain useful, time saving features missing from the stock management that the personnel of Autotalo Pelttari would like to have. Something good, something bad, at least there is room for improvement. Now the company Z needs to listen to the wishes of Autotalo Pelttari and manage to update their software and correct certain things properly. This way the

new software will be able to provide even more value to Autotalo Pelttari and turn out to be a great success.

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The results of the questionnaire

The used questions and the distribution of responses.

1. "It is easier to use the new software compared to the old"

Totally disagree: 5 responses

Somewhat disagree: 0 responses

Neither agree or disagree: 3 responses

Somewhat agree: 1 response

Totally agree: 0 responses

The most responded option: Totally disagree

The average response: Somewhat disagree

2. "The new software requires less mouse clicking than the old one"

Totally disagree: 6 responses

Somewhat disagree: 1 response

Neither agree or disagree: 1 response

Somewhat agree: 1 response

Totally agree: 0 responses

The most responded option: Totally disagree

The average response: Somewhat disagree

3. "The new software is smoother and more simple to use compared to the old"

Totally disagree: 4 responses

Somewhat disagree: 4 responses
Neither agree or disagree: 0 responses
Somewhat agree: 1 response
Totally agree: 0 responses

The most responded option: Totally disagree and Somewhat disagree
The average response: Somewhat disagree

4. "The new software is faster to use compared to the old one"

Totally disagree: 5 responses
Somewhat disagree: 2 responses
Neither agree or disagree: 0 responses
Somewhat agree: 2 responses
Totally agree: 0 responses

The most responded option: Totally disagree
The average response: Somewhat disagree

5. "The new software has reduced the amount of unnecessary workload"

Totally disagree: 4 responses
Somewhat disagree: 3 responses
Neither agree or disagree: 0 responses
Somewhat agree: 2 responses
Totally agree: 0 responses

The most responded option: Totally disagree
The average response: Somewhat disagree

6. "The appearance of the new software is more pleasant compared to the old"

Totally disagree: 2 responses
Somewhat disagree: 2 responses

Neither agree or disagree: 3 responses

Somewhat agree: 2 responses

Totally agree: 0 responses

The most responded option: Neither agree or disagree

The average response: Somewhat disagree and Neither agree or disagree

7. "The new software has some useful new functions that the old one lacked"

Totally disagree: 2 responses

Somewhat disagree: 1 response

Neither agree or disagree: 0 responses

Somewhat agree: 4 responses

Totally agree: 2 responses

The most responded option: Somewhat agree

The average response: Neither agree or disagree

8. "The new software performs better in pricing used cars than the old one"

Totally disagree: 1 response

Somewhat disagree: 3 responses

Neither agree or disagree: 1 response

Somewhat agree: 3 responses

Totally agree: 1 response

The most responded option: Somewhat disagree and Somewhat agree

The average response: Neither agree of disagree

9. "It is easy to find the needed information in the new software"

Totally disagree: 4 responses

Somewhat disagree: 0 responses

Neither agree or disagree: 2 responses

Somewhat agree: 3 responses

Totally agree: 0 responses

The most responded option: Totally disagree

The average response: Somewhat disagree

10. "The new software lacks significant features that the old software had"

Totally disagree: 0 responses

Somewhat disagree: 3 responses

Neither agree or disagree: 2 responses

Somewhat agree: 2 responses

Totally agree: 2 responses

The most responded option: Somewhat disagree

The average response: Neither agree or disagree

This statement was reverse compared to the other ones. The answers reveal that many employees are missing some features of the old software.

11. "The new software has been helpful when estimating the repair costs of used cars"

Totally disagree: 2 responses

Somewhat disagree: 1 response

Neither agree or disagree: 3 responses

Somewhat agree: 3 responses

Totally agree: 0 responses

The most responded option: Neither agree of disagree and Somewhat agree

The average response: Neither agree of disagree

12. "The new software has helped to gain a better profit margin from the deals"

Totally disagree: 2 responses

Somewhat disagree: 3 responses

Neither agree or disagree: 2 responses

Somewhat agree: 2 responses

Totally agree: 0 responses

The most responded option: Somewhat disagree

The average response: Somewhat disagree