

Appendix

Master Thesis
Strategic Product Design
Yue Chen

Appendix 1

Internal Interview Insights

Product Owner

Data Entry: Boring, slow, repetitive, hard to find ppl who want to do this

Scanning become more important you scan your invoices and get them in a digital form back. The same for bank, a lot of bank entry was done manually and you can also import that.

Exact want to automate it and help users to spend their time wisely and create more value. We set a couple of teams, one of them is the robotic accounting (and others are invoice gateway and bank gateway, who are mainly get information easily) . --- Process these digital delivered content. We start the first things two years to go, and still have a lot of things to do.

What we see, especially for invoice scanning, customers are happy with it, they want to review almost every scan on screen before they actually create the entry. Because of the fear to make errors. The user group accountants very low tolerance for errors, especially who create entries, their managers will be angry if they make mistakes. So they better check twice.

The software doesn't have that many errors, they just want to be sure that they see everything that goes in. There is a group that they always focus on data. That they always have done the data entry manually, if you scan it, before they get the end result, they want to review it. We first work with entry proposal, and then entries, so they look at all entry proposals.

Now we are focus on improving the entry proposal, after that, we want to start focusing on actually the automation. So they accept the entry is already created for that.

Data: For scans, good proposal 55-60%. But out of

that, we only see 5-6% of those are automatically scanned. The 95% of them, which are basically ready, people still don't trust us to create the entry automatically, they want to see the proposal first and then press the button themselves.

95% do they change? The majority is not changed. Don't have good data on it.

Now there is not even a good way to see what happen, if you do it automatically, you had no clue what happened. not only the feedback, but not even a way to find it.

One of the way to get trust is to tell them what is happen.

By focusing on --financial data up-to-date – then how are you doing, what are the revenue forecasting.

The main benefit: 1. Time-saving 2. Quality 3. Less error 4. Consistency (categorize the items in the same way, also by different people), at the end it matters, because you use these financial categories for your reporting. 5. It's more real-time. A lot of companies only do it quartly, when you do it it is already 3 weeks late.

Accountants: do it all day, the time saving is important, for entrepreneurs are not doing the accounting so it doesn't matter that much.

Main concern of users: the fear of not being in control, not understanding what is happening.

A big part is the user personality. Most accountants and bookkeepers avoid risks or very certain and controlled and structured people, very used to the common way of working that they know, low desire for change, low risk profile. It takes time to convince them, you have to do it in really

small steps. It brings quite some challenges in development. Sometimes you want to take big steps but then you need to make it in small steps.

Not specifically look at other companies doing the automatic accounting.

Have in mind : Daily summary/ showing the value of acception is a lot bigger.....

Pilot users: 16 accountancy firms. All of them multiple users. For bigger firm, the partner is pushing on automation, the more senior people are capable to let the automation go and check after, but junior people, so not on the age but how they work, they do check everything, even in the company the partner can not persuade his colleagues. It partly also due to our solution, because you have to provide insight, we now have this overview which shows all your purchase invoices nicely shorted on date, we don't really have it in this way we have more on financial entries.

(O: it's funny because you would expect the other way around because the more senior really know their way of working and they distrust other way....

R: That's the older ones. Then it's about age)

T: is it because that the junior people have managers above them

R: Yes I once made this joke with our partner that if they make mistake you will be angry at them. And they smile at me and say yeah probably are.

It makes sense because it depends a bit on the accounting firm, either you have advisor or you have official return, or sth to do with the finance or you are getting a loan, if there are significant errors in the data it can have a big impact. You have to compare it to your own financial situation, if you want to buy a house and you have a advisor and he made a mistake for whatever reason, he said you can get a xxx of 200000 euro while actually with 250000, it could be impact to have wrong data.

The bad experience, it can last for years. When ppl try sth, if it doesn't work it's ok but it is error and they spend a lot of time to correct it then it is almost like trauma, that you ask them did you

use it and then they said yes I tried it three years ago but it didn't work

O: T, when you have new features with automation do you test the trust of users?

T: No. not aware of those.

Kind of implicit, when you have test it how they understand it , if they make the task success then you assume that they trust it.

Peppol is an interesting case, you have to register for peppol which is a very unknowing concept, you will get your invoice electronically and send electronically. So sending is invisible sort of, (receiving is something there). So you don't really know, we give a little bit insight of what happening but not completley

O:So it's really soothing also about insighting from the users, like knowing about what is happening. I think user don't really mind it is happening by itself, the only thing is they want to know what is happening.

For accountancy people, the completeness is very important, how can you guarantee it is complete so I don't miss anything. When they have paper they assume it's everything though it is also a silly assumption.

Even sending via email is already still a problem for a lot of people. It is completely invisible if it arise, you just assume if you don't get a warning or error it has arrived. Also for invoice sending, if your invoice doesn't arrive, then you don't get your money. If it happens all the time you get bankrupt. So the impact is quite big.

It's also a difference between accounting and either you are doing your accounting for the clients, so they don't really care about the business of the clients they only need to make sure it's up to date. For the clients he has to be really sure the invoice is accepted.

Data Scientist

Not matter what the automation is, customers want to in be control

Bank Transaction:

Check (now only) own history to see if it is similar transaction.

70% higher - probably a new one here.

Now only suggestions about the supplier. if there is only one suggeststion then it is automatically booked.?

Some adopt some not (not in control)

Only use 3% scan recognition of invoicement (doing something not right; supplier KPN / KPNVIP)

The functionality works and their experience with that:

The automatic must be completely right. (maybe you bring it too early before it's mature enough)

Correct rate : don't have yet, but you can see the suggestions whether they accept it. Suggestion about the bank transaction is around 80%. Also a lot of people enable to to book it directly in one time in one time. But it's still less than the percentage itself that actually use the function

Trying to apply more and more AI.

One of the incoming project. RGS (Referentie GrootboekSchema) Reference Classification System of Financial Information (RCSFI). Kind of a standard of classification of categories. It's not mandatory. 10% of the companies are using it. We are now trying to learning from the 10% to apply it. In this case it is very time consuming to do it themselves so maybe users will trust it more. Still they want to be in control, so the design: how can they easy check it? What is the dargest they suggest and what they want. They can select whether it's right. Still not in product (in June)

Now on own history, working on learn from other companies. (but users don't know whether there is this change, so not sure whether it has something related to the trust here, because users don't recognize it)

Control, also showing

People think it's ok to auto book for them, but they want to know what are based on the AI so they can check.

Now they don't identify which is based on own history and which is based on AI.

RGS will be released in June 1st.

Revenue forecasting what's your revenue in the following 3 months? Based on your own data but also the data of other companies, like the trends in economy like in this period most the company will have a revenue fall.

Now is only make your financial administration. And you can at the end check and detect whether there is a mistake. But the revenue prediction is more of a guess. Now the companies have it themselves but only based on like their average number blahblah. If they use it, they may make decision on it, but then if it goes wrong, Exact don't want to have the responsibility for that. Metaphor: like weather forecast. Maybe there are factors we don't know and they will understand it. But how will they trust it?...

And they may not fill in the deal immediately. Sometimes they will just fill in it in a few months. So you maybe also remind them to keep the record up-to-date to have the best prediction. Or disclaim that because of the data is not up-to-date so the prediction could be not precies.

1.bank transition 2.invoice(scan/digital transfer)

What do you want to do? You could enter it automatically, but maybe then you are not aware of the new invoice. On the other hand you may not want to check the new invoice all the time. For scan recogonize but the you know the information there is right or not. We could automatically

read it and book it, but do you want every time a notification?

That's what we want to detect as well. (not started yet) Based on the history, could we detect the regular transactions so we don't say anything book it automatically, and detect that new ones, we may still book it automatically but we show a flag or something that they pay attention. Or maybe we detect something very abnormal and may be a currept or something. so we give a orange flag or something blah blah blah. So think about the when and how to give notification.

How we do it right? And after that—notification Do the automation, still in control / show the automation

Now: test- correct model -test- correct.-- 70% correct - test with customers -see reaction - implement.

Development strategy. - kind of free.

Main Conclusion:

Two part of automation:

1. Financial Administration
2. Revenue Prediction and Maybe Advising

Two factors of building trust:

1. Do Automation (right)
2. Show Automation

Appendix 2

User Research- Questionnaire

Vertrouwen In Automatisering - Exact Online

Beste gebruikers van Exact Online,

Hoi! Exact werkt nu aan de visie "No Hands Accounting" om het boekhoudproces voor gebruikers te automatiseren. Wij horen graag jouw mening om de betrouwbaarheid in de automatisering van onze producten te verbeteren.

Het duurt ongeveer 10 - 15 minuten om deze enquête te vullen. Al je antwoorden zijn anoniem en worden slechts gebruikt voor academische doeleinden en productverbetering.

Als je vragen over de enquête hebt, kunt je een e-mail sturen naar: yue.chen@exact.com

We stellen uw input zeer op prijs!

Basis informatie

1. Leeftijd *

2. Wat voor soort gebruiker ben jij? *

请仅选择一个答案。

- Externe accountant
 Bedrijfsaccountant
 Ondernemer
 其他: _____

3. Hoe lang gebruik je Exact Online? *

4. Wat vindt u van automatisering / AI (Artificial intelligence) in de boekhouding? Gebruik 3 - 5 woorden om je mening te beschrijven, denk na over zowel positieve woorden als negatieve woorden. *

Ervaring met automatisering in Exact Online

1. Algemene indruk

Hieronder staan uitspraken over hoe je in het algemeen denkt over Automation en Exact Online. Geef aan in hoeverre je het eens of oneens bent met elke stelling.

1 -- Zeer oneens 2 -- Oneens 3 -- Redelijk oneens 4 -- Neutraal 5 -- Redelijk eens 6 -- Eens 7 -- Zeer eens

5. Exact is een betrouwbaar merk. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

6. Exact neemt mijn welzijn serieus. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

7. Ik geloof dat automatisering een veelbelovende ontwikkeling is in de boekhouding. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

8. Ik denk dat automatisering bedreigend is. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

9. Mensen om mij heen hebben een positieve houding tegenover automatisering. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

Ervaring met automatisering in Exact Online

2. Automatische Factuurtoewijzing

Automatische Factuurtoewijzing is de digitalisering en automatische herkenning van facturen. Bij het gebruik van digitale facturen of digitaliseer papieren facturen en ontvangsten met Scan & Recognize. De robot herkent de artikelen vervolgens automatisch en verdeelt de items van de factuur in VAT-codes of -categorieën.

Beantwoord de volgende vragen over automatische factuurtoewijzing.

10. Heb je de Automatische Factuurtoewijzing ooit gebruikt? *

请仅选择一个答案。

- Ja 跳转到问题 12。
 Nee 跳转到问题 11。

Ervaring met automatisering in Exact Online

11. **Waarom gebruik je de Automatische Factuurtoewijzing niet?**

跳转到问题 23。

Ervaring met automatisering in Exact Online

2. Automatische Factuurtoewijzing

Hieronder staan uitspraken over hoe jij Automatische Factuurtoewijzing ervaart. Geef aan in hoeverre je het eens of oneens bent met de stelling.

1 -- Strongly Disagree 2 -- Disagree 3 -- Rather Disagree 4 -- Neutral 5 -- Rather Agree 6 -- Agree 7 -- Strongly Agree

12. **Automatische Factuurtoewijzing kan de situatie correct interpreteren. ***

请仅选择一个答案。

1 2 3 4 5 6 7

Zeer oneens Zeer eens

13. **Automatische Factuurtoewijzing verbetert de kwaliteit van mijn prestaties. ***

请仅选择一个答案。

1 2 3 4 5 6 7

Zeer oneens Zeer eens

14. **Automatische Factuurtoewijzing zorgt ervoor dat ik taken sneller of gemakkelijker volbreng. ***

请仅选择一个答案。

1 2 3 4 5 6 7

Zeer oneens Zeer eens

15. **Het proces om Automatische Factuurtoewijzing te gebruiken is gebruiksvriendelijk. ***

请仅选择一个答案。

1 2 3 4 5 6 7

Zeer oneens Zeer eens

16. **De status van Automatische Factuurtoewijzing is mij altijd duidelijk. ***

请仅选择一个答案。

1 2 3 4 5 6 7

Zeer oneens Zeer eens

17. **Automatische Factuurtoewijzing reageert voorspelbaar. ***

请仅选择一个答案。

1 2 3 4 5 6 7

Zeer oneens Zeer eens

18. **Ik begrijp hoe Automatische Factuurtoewijzing werkt. ***

请仅选择一个答案。

1 2 3 4 5 6 7

Zeer oneens Zeer eens

19. **De Automatische Factuurtoewijzing kan fouten maken. ***

请仅选择一个答案。

1 2 3 4 5 6 7

Zeer oneens Zeer eens

20. **De fouten van Automatische Factuurtoewijzing zijn onaanvaardbaar. ***

请仅选择一个答案。

1 2 3 4 5 6 7

Zeer oneens Zeer eens

21. **Ik zou de Automatische Factuurtoewijzing vertrouwen. ***

请仅选择一个答案。

1 2 3 4 5 6 7

Zeer oneens Zeer eens

22. **Hoe jouw vertrouwen in de Automatische Toewijzing van facturen in de loop van de tijd verandert? ***

请在每行中仅选择一个答案。

	Totaal wantrouwen	Wantrouwen	Eerder wantrouwen	Neutrale	Liever vertrouwen	Vertrouwen	Volledig vertrouwen
Wanneer je er voor het eerst van op de hoogte bent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wanneer je het voor het eerst ervaart	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ervaring met automatisering in Exact Online

3. Automatische Banktoewijzing

Automatische Banktoewijzing is het automatisch identificeren van banktransacties, waarna ze dagelijks aan je administratie worden toegevoegd. De robot herkent ze, boekt ze op de juiste grootboekrekening en

verwerkt ook de verschillen.

Beantwoord de volgende vragen over Automatische banktoewijzing.

23. Heb je ooit Automatische Banktoewijzing gebruikt? *

请仅选择一个答案。

- Ja *跳转到问题 25。*
 Nee *跳转到问题 24。*

24. Waarom gebruik je de Automatische Banktoewijzing niet?

跳转到问题 36。

Ervaring met automatisering in Exact Online

3. Automatische Banktoewijzing

Hieronder staan uitspraken over hoe je Automatische Banktoewijzing ervaart. Geef aan in hoeverre je het eens of oneens bent met de stelling.

1 -- Zeer oneens 2 -- Oneens 3 -- Redelijk oneens 4 -- Neutraal 5 -- Redelijk eens 6 -- Eens 7 -- Zeer eens

25. Automatische Banktoewijzing is in staat om de situatie correct te interpreteren. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

26. Automatische Banktoewijzing verbetert de kwaliteit van mijn prestaties. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

27. Automatische Banktoewijzing zorgt ervoor dat ik taken sneller of gemakkelijker volbreng. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

28. Het proces om Automatische Banktoewijzing te gebruiken is gebruiksvriendelijk. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

29. De status van Automatische Banktoewijzing is mij altijd duidelijk. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

30. Automatische Banktoewijzing reageert voorspelbaar. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

31. Ik begrijp hoe Automatische Banktoewijzing werkt. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

32. De Automatische Banktoewijzing kan fouten maken. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

33. De fouten van Automatische Banktoewijzing zijn onaanvaardbaar. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

34. Ik vertrouw erop dat ik op Automatische Banktoewijzing kan vertrouwen. *

请仅选择一个答案。

1 2 3 4 5 6 7
Zeer oneens Zeer eens

35. Hoe uw vertrouwen in de Automatische Banktoewijzing verandert in de loop van de tijd? *

请在每行中仅选择一个答案。

	Totaal wantrouwen	Wantrouwen	Eerder wantrouwen	Neutrale	Liever vertrouwen	Vertrouwen	Volledig vertrouwen
Wanneer je er voor het eerst van op de hoogte bent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wanneer je het voor het eerst ervaart	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ervaring met automatisering in Exact Online

36. Kan je een ervaringen met goede of slechte impact op je vertrouwen in de automatisering in Exact Online delen?

Toekomstverwachting

37. Wat is je toekomstige verwachting van automatisering in de boekhouding?

38. Als je nog andere gedachten hebt over automatisering in de boekhouding, kun je dit hieronder met ons delen.

Interview Uitnodiging

39. Sta je open voor een interview op basis van je antwoorden over dit onderwerp? *

请仅选择一个答案。

- Ja
 Nee

40. Zo ja, laat dan je naam en telefoonnummer achter. Dank je!

Trust in Automation - Exact Online

Dear users of Exact Online,

Hi! Exact is now working on the vision "No Hands Accounting" to automate the accounting process for users. In order to create a trustworthy automatic experience for users, we would love to hear your opinions to help us improve the product.

This survey should take about 10 - 15 minutes to fill in. All your responses are anonymous. The answers will only be used for academic purpose and product improvement.

If you have any questions about the survey, please email us: yue.chen@exact.com

We really appreciate your input!

*必填

Basic Information

1. Age *

2. Position *

3. How long have you been using Exact Online? *

4. What do you think about automation / AI (artificial intelligence) in bookkeeping? Please use 3 - 5 words to describe your opinion, think about both positive words and negative words. *

Experience with Automation in Exact Online

1. General Impression

Below are statements about generally how you feel about Automation and Exact Online. Please read each one and indicate to what extent you agree or disagree with each statement.

1 -- Strongly Disagree 2 -- Disagree 3 -- Rather Disagree 4 -- Neutral 5 -- Rather Agree 6 -- Agree 7 -- Strongly Agree

5. Exact is a trustworthy brand. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

6. Exact takes my well-being seriously. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

7. I believe automation is a promising trend in bookkeeping. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

8. I think automation is threatening. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

9. People around me have a positive attitude towards automation. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

Experience with Automation in Exact Online

2. Automatic Invoice Allocation

Automatic Invoice Allocation means the digitalization and automatic recognition of invoice. Use digital invoice, or digitalize paper invoices and receipts by Scan & Recognize. Then the robot will recognize the items automatically and divide the items of the invoice into VAT codes or categories.

Please answer the following questions about Automatic Invoice Allocation.

10. Have you ever used Automatic Invoice Allocation? *

请仅选择一个答案。

Yes 跳转到问题 12。

No 跳转到问题 11。

Experience with Automation in Exact Online

11. Why don't you use Automatic Invoice Allocation?

跳转到问题 23。

Experience with Automation in Exact Online

2. Automatic Invoice Allocation

Below are statements about how you feel and experience with Automatic Invoice Allocation. Please read each one and indicates to what extent you agree or disagree with the each statement.

1 -- Strongly Disagree 2 -- Disagree 3 -- Rather Disagree 4 -- Neutral 5 -- Rather Agree 6 -- Agree 7 -- Strongly Agree

12. Automatic Invoice Allocation is capable of interpreting the situation correctly. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

13. Automatic Invoice Allocation improves the quality of my performance. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

14. Automatic Invoice Allocation makes me accomplish tasks more quickly or easier. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

15. The process to use Automatic Invoice Allocation is user-friendly. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

16. The state of Automatic Invoice Allocation is always clear to me. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

17. Automatic Invoice Allocation reacts predictably. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

18. I understand how Automatic Invoice Allocation works. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

19. The Automatic Invoice Allocation could make mistakes. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

20. The mistakes of Automatic Invoice Allocation is unacceptable. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

21. I feel confident to rely on Automatic Invoice Allocation. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

22. How your trust towards Automatic Invoice Allocation changes over time? *

请在每行中仅选择一个答案。

	Totally distrust	Distrust	Rather distrust	Neutral	Rather trust	Trust	Totally trust
When you first know about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When you first experience with it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Now	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Experience with Automation in Exact Online

3. Automatic Bank Allocation

Automatic Bank Allocation means that bank transactions are automatically identified, then they will be added to your administration on a daily base. The robot recognizes them, books them on the correct ledger account and also processes the differences.

Please answer the following questions about Automatic Bank Allocation.

23. Have you ever used Automatic Bank Allocation? *

请仅选择一个答案。

- Yes 跳转到问题 25。
 No 跳转到问题 24。

24. Why don't you use the Automatic Bank Allocation?

跳转到问题 36。

Experience with Automation in Exact Online

3. Automatic Bank Allocation

Below are statements about how you feel and experience with Automatic Bank Allocation. Please read each one and indicates to what extent you agree or disagree with the each statement.

1 -- Strongly Disagree 2 -- Disagree 3 -- Rather Disagree 4 -- Neutral 5 -- Rather Agree 6 -- Agree 7 -- Strongly Agree

25. Automatic Bank Allocation is capable of interpreting the situation correctly. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

26. Automatic Bank Allocation improves the quality of my performance. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

27. Automatic Bank Allocation makes me accomplish tasks more quickly or easier. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

28. The process to use Automatic Bank Allocation is user-friendly. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

29. The state of Automatic Bank Allocation is always clear to me. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

30. Automatic Bank Allocation reacts predictably. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

31. I understand how Automatic Bank Allocation works. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

32. The Automatic Bank Allocation could make mistakes. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

33. The mistakes of Automatic Bank Allocation is unacceptable. *

请仅选择一个答案。

1 2 3 4 5 6 7

Strongly Disagree Strongly Agree

34. I feel confident to rely on Automatic Bank Allocation. *

请仅选择一个答案。

	1	2	3	4	5	6	7	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

35. How your trust towards Automatic Bank Allocation changes over time? *

请在每行中仅选择一个答案。

	Totally distrust	Distrust	Rather distrust	Neutral	Rather trust	Trust	Totally trust
When you first know about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When you first experience with it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Now	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Experience with Automation in Exact Online

36. Could you share one of your experience that has a good or bad impact on your trust towards the automation in Exact Online?

Future Expectation

37. What is your future expectation of automation in bookkeeping?

38. If you have any other thoughts about automation in bookkeeping, please share with us below.

Interview Invitation

39. Are you open for an interview based on your answers about this topic? *

请仅选择一个答案。

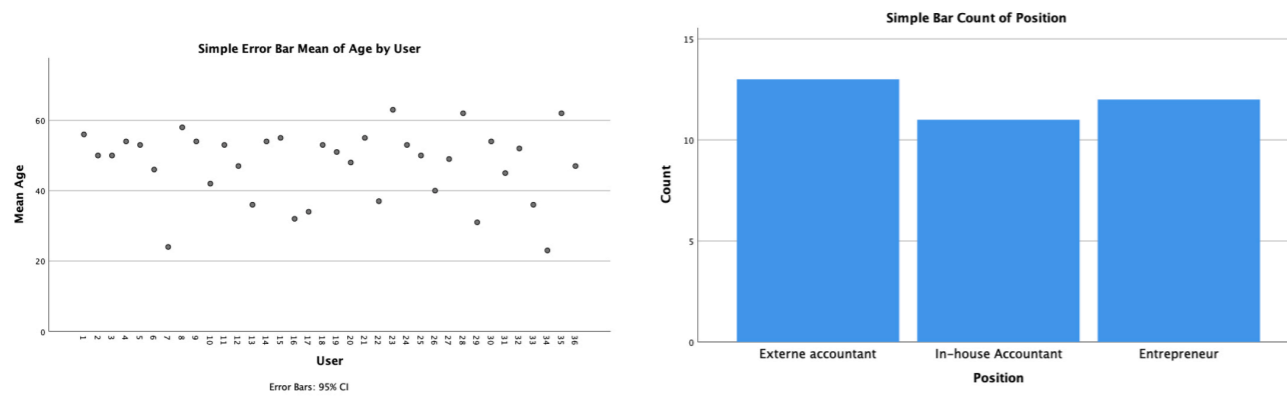
Yes

No

40. If so, please leave your name and phone number. Thank you!

Appendix 3

Data Analysis from Quantitative Research



Distribution of the respondents on age and position

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Exact is a trustworthy brand.	36	4.00	7.00	6.0278	.81015
Exact takes my well-being seriously.	36	1.00	7.00	4.8611	1.57031
I believe automation is a promising trend in bookkeeping.	36	4.00	7.00	6.2222	.83190
I think automation is threatening.	36	1.00	7.00	2.1111	1.54509
People around me have a positive attitude towards automation.	36	4.00	7.00	5.3056	.95077
Valid N (listwise)	36				

The score of external elements and purpose elements

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IA is capable of interpreting the situation correctly.	19	1.00	6.00	4.7368	1.24017
IA improves the quality of my performance.	19	1.00	6.00	4.6842	1.37649
IA makes me accomplish tasks more quickly or easier.	19	4.00	7.00	5.6316	1.01163
The process to use IA is user-friendly.	19	3.00	6.00	5.0000	.94281
The state of IA is always clear to me.	19	2.00	6.00	4.3158	1.10818
IA reacts predictably.	19	1.00	6.00	4.5789	1.42657
I understand how IA works.	19	1.00	7.00	4.8947	1.62941
IA could make mistakes.	19	4.00	7.00	6.0000	1.20185
The mistakes of IA is unacceptable.	19	1.00	7.00	4.4737 3.5263	1.50438
I feel confident to rely on IA.	19	1.00	6.00	3.9474	1.68238
Valid N (listwise)	19				

The score of internal elements towards Automatic Invoice Allocation

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
BA is capable of interpreting the situation correctly.	31	1.00	7.00	5.1290	1.17592
BA improves the quality of my performance.	31	1.00	7.00	5.2581	1.29016
BA makes me accomplish tasks more quickly or easier.	31	3.00	7.00	5.6452	1.22606
The process to use BA is user-friendly.	31	1.00	7.00	5.5161	1.23480
The state of BA is always clear to me.	31	1.00	7.00	4.7097	1.44207
BA reacts predictably.	31	1.00	6.00	4.8387	1.43983
I understand how BA works.	31	3.00	7.00	5.8065	1.07763
BA could make mistakes.	31	2.00	7.00	5.7097	1.29598
The mistakes of BA is unacceptable.	31	1.00	7.00	4.0968 3.9032	1.75793
I feel confident to rely on BA.	31	1.00	7.00	4.6452	1.58216
Valid N (listwise)	31				

The score of internal elements towards Automatic Bank Allocation

		Correlations										
		I feel confident to rely on IA.	IA is capable of interpreting the situation correctly.	IA improves the quality of my performance.	IA makes me accomplish tasks more quickly or easier.	The process to use IA is user-friendly.	The state of IA is always clear to me.	IA reacts predictably.	I understand how IA works.	IA could make mistakes.	The mistakes of IA is unacceptable.	
I feel confident to rely on IA.	Pearson Correlation	1	.605**	.592**	.216	.175	.188	.662**	.201	-.577**	-.626**	
	Sig. (2-tailed)		.006	.008	.373	.473	.440	.002	.410	.010	.004	
	N	19	19	19	19	19	19	19	19	19	19	
IA is capable of interpreting the situation correctly.	Pearson Correlation	.605**	1	.632**	.228	.238	.185	.468*	.508*	-.298	-.585**	
	Sig. (2-tailed)	.006		.004	.347	.327	.448	.043	.026	.215	.009	
	N	19	19	19	19	19	19	19	19	19	19	
IA improves the quality of my performance.	Pearson Correlation	.592**	.632**	1	.351	.471*	.178	.381	.381	-.302	-.246	
	Sig. (2-tailed)	.008	.004		.141	.042	.465	.107	.108	.209	.311	
	N	19	19	19	19	19	19	19	19	19	19	
IA makes me accomplish tasks more quickly or easier.	Pearson Correlation	.216	.228	.351	1	.233	.506*	.464*	.346	-.137	-.061	
	Sig. (2-tailed)	.373	.347	.141		.337	.027	.045	.147	.576	.803	
	N	19	19	19	19	19	19	19	19	19	19	
The process to use IA is user-friendly.	Pearson Correlation	.175	.238	.471*	.233	1	.372	.041	.253	-.049	-.039	
	Sig. (2-tailed)	.473	.327	.042	.337		.117	.867	.296	.842	.874	
	N	19	19	19	19	19	19	19	19	19	19	
The state of IA is always clear to me.	Pearson Correlation	.188	.185	.178	.506*	.372	1	.475*	.296	-.167	-.128	
	Sig. (2-tailed)	.440	.448	.465	.027	.117		.040	.218	.495	.601	
	N	19	19	19	19	19	19	19	19	19	19	
IA reacts predictably.	Pearson Correlation	.662**	.468*	.381	.464*	.041	.475*	1	.147	-.518*	-.368	
	Sig. (2-tailed)	.002	.043	.107	.045	.867	.040		.548	.023	.121	
	N	19	19	19	19	19	19	19	19	19	19	
I understand how IA works.	Pearson Correlation	.201	.508*	.381	.346	.253	.296	.147	1	-.142	-.250	
	Sig. (2-tailed)	.410	.026	.108	.147	.296	.218	.548		.562	.301	
	N	19	19	19	19	19	19	19	19	19	19	
IA could make mistakes.	Pearson Correlation	-.577**	-.298	-.302	-.137	-.049	-.167	-.518*	-.142	1	.553*	
	Sig. (2-tailed)	.010	.215	.209	.576	.842	.495	.023	.562		.014	
	N	19	19	19	19	19	19	19	19	19	19	
The mistakes of IA is unacceptable.	Pearson Correlation	-.626**	-.585**	-.246	-.061	-.039	-.128	-.368	-.250	.553*	1	
	Sig. (2-tailed)	.004	.009	.311	.803	.874	.601	.121	.301	.014		
	N	19	19	19	19	19	19	19	19	19	19	

Regression analysis between internal elements with trust - Automatic Invoice Allocation

		Correlations										
		I feel confident to rely on BA.	BA is capable of interpreting the situation correctly.	BA improves the quality of my performance.	BA makes me accomplish tasks more quickly or easier.	The process to use BA is user-friendly.	The state of BA is always clear to me.	BA reacts predictably.	I understand how BA works.	BA could make mistakes.	The mistakes of BA is unacceptable.	
I feel confident to rely on BA.	Pearson Correlation	1	.688**	.602**	.483**	.711**	.669**	.750**	.291	-.377*	-.275	
	Sig. (2-tailed)		.000	.000	.006	.000	.000	.000	.113	.037	.135	
	N	31	31	31	31	31	31	31	31	31	31	
BA is capable of interpreting the situation correctly.	Pearson Correlation	.688**	1	.724**	.449*	.710**	.573**	.820**	.283	-.281	-.409*	
	Sig. (2-tailed)	.000		.000	.011	.000	.001	.000	.122	.126	.022	
	N	31	31	31	31	31	31	31	31	31	31	
BA improves the quality of my performance.	Pearson Correlation	.602**	.724**	1	.650**	.646**	.490**	.651**	.253	-.093	-.173	
	Sig. (2-tailed)	.000	.000		.000	.000	.005	.000	.170	.618	.352	
	N	31	31	31	31	31	31	31	31	31	31	
BA makes me accomplish tasks more quickly or easier.	Pearson Correlation	.483**	.449*	.650**	1	.587**	.543**	.571**	.325	-.088	-.154	
	Sig. (2-tailed)	.006	.011	.000		.001	.002	.001	.075	.638	.409	
	N	31	31	31	31	31	31	31	31	31	31	
The process to use BA is user-friendly.	Pearson Correlation	.711**	.710**	.646**	.587**	1	.592**	.780**	.503**	-.216	-.454*	
	Sig. (2-tailed)	.000	.000	.000	.001		.000	.000	.004	.244	.010	
	N	31	31	31	31	31	31	31	31	31	31	
The state of BA is always clear to me.	Pearson Correlation	.669**	.573**	.490**	.543**	.592**	1	.828**	.263	-.403*	-.212	
	Sig. (2-tailed)	.000	.001	.005	.002	.000		.000	.153	.024	.252	
	N	31	31	31	31	31	31	31	31	31	31	
BA reacts predictably.	Pearson Correlation	.750**	.820**	.651**	.571**	.780**	.828**	1	.280	-.437*	-.494**	
	Sig. (2-tailed)	.000	.000	.000	.001	.000	.000		.127	.014	.005	
	N	31	31	31	31	31	31	31	31	31	31	
I understand how BA works.	Pearson Correlation	.291	.283	.253	.325	.503**	.263	.280	1	-.042	.098	
	Sig. (2-tailed)	.113	.122	.170	.075	.004	.153	.127		.824	.599	
	N	31	31	31	31	31	31	31	31	31	31	
BA could make mistakes.	Pearson Correlation	-.377*	-.281	-.093	-.088	-.216	-.403*	-.437*	-.042	1	.261	
	Sig. (2-tailed)	.037	.126	.618	.638	.244	.024	.014	.824		.155	
	N	31	31	31	31	31	31	31	31	31	31	
The mistakes of BA is unacceptable.	Pearson Correlation	-.275	-.409*	-.173	-.154	-.454*	-.212	-.494**	.098	.261	1	
	Sig. (2-tailed)	.135	.022	.352	.409	.010	.252	.005	.599	.155		
	N	31	31	31	31	31	31	31	31	31	31	

Regression analysis between internal elements with trust - Automatic Book Allocation

		Coefficients ^a					95.0% Confidence Interval for B	
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Lower Bound	Upper Bound
Model		B	Std. Error	Beta				
1	(Constant)	4.380	.164		26.742	.000	4.051	4.709
	MPredictbilty1	.823	.116	.715	7.089	.000	.589	1.056
2	(Constant)	4.380	.153		28.607	.000	4.072	4.688
	MPredictbilty1	.621	.130	.540	4.780	.000	.360	.883
	MUsefulness1	.389	.138	.318	2.816	.007	.111	.668

a. Dependent Variable: I feel confident to rely on IA.

		Excluded Variables ^a				
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	MSituationAware1	.330 ^b	2.509	.016	.344	.529
	MUsefulness1	.318 ^b	2.816	.007	.380	.697
	MEfficiency1	.000 ^b	.004	.997	.001	.717
	MEaseOfUse1	.226 ^b	1.925	.060	.270	.698
	MClearness1	.016 ^b	.111	.912	.016	.489
	MUnderstandability1	.136 ^b	1.318	.194	.189	.948
	MMistakes1	-.160 ^b	-1.414	.164	-.202	.778
	MAcceptanceMistake1	-.105 ^b	-.922	.361	-.133	.792
2	MSituationAware1	.191 ^c	1.263	.213	.183	.383
	MEfficiency1	-.119 ^c	-1.006	.320	-.147	.635
	MEaseOfUse1	.110 ^c	.882	.382	.129	.571
	MClearness1	.012 ^c	.086	.932	.013	.489
	MUnderstandability1	.064 ^c	.625	.535	.092	.872
	MMistakes1	-.190 ^c	-1.813	.076	-.258	.771
	MAcceptanceMistake1	-.119 ^c	-1.127	.266	-.164	.790

a. Dependent Variable: I feel confident to rely on IA.

b. Predictors in the Model: (Constant), MPredictbilty1

c. Predictors in the Model: (Constant), MPredictbilty1, MUsefulness1

Multi-linear regression analysis between external analysis and trust

Appendix 4

The Sensitizing Booklet for User Research



Trust For Automation

Personal introduction

Let's start with introducing yourself!

Name:

Age:

Gender:

Position:

Industry:

I have been using Exact Online for how long:

When doing bookkeeping, I focus on:



Social Circle

Who do you need to communicate with when doing your bookkeeping? Please list them in the circle. The most important ones should be in the center of the circle and the less important ones in the edge.



How Do I See Automation

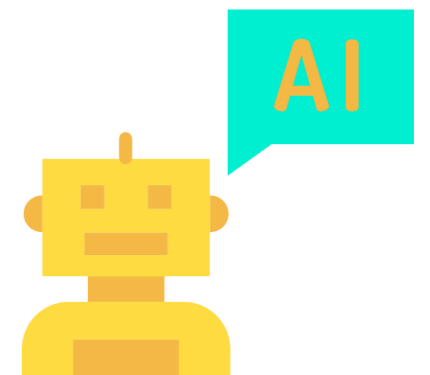
Please use three positive and three negative words to describe how you feel about AI / automatic functions in bookkeeping?

Positive:

Negative:

Here are some words for inspiration!

helpful smart friendly
threatening fear hopeful
unknown understandable
exciting concerned
confusing efficient
trustworthy suspect.....



Automation in Exact Online

Do you know about the automation in Exact Online? Let me introduce those automatic functions first! Please note that the first two are existing features and the third one is potential future feature.



Invoice Allocation

Use digital invoice, or digitalize paper invoices and receipts by Scan & Recognize. The robot will recognize the items automatically and divide invoice lines into VAT code or category.



Bank Allocation

Bank transactions are automatically identified. They will be added to your administration on a daily base. The robot recognizes them, books them on the correct ledger account and also processes the differences.



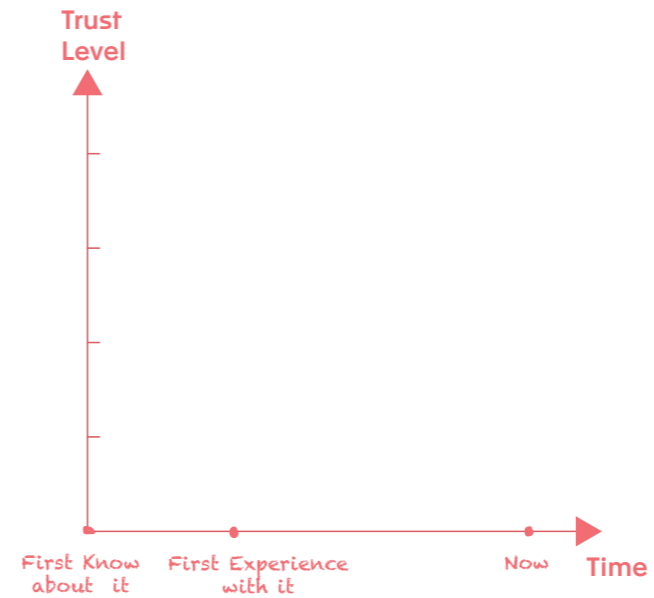
Overview / Forecast

In the future, there will be more advanced features added to the automation. Here is one of the possibilities. The robot will automatically create an up-to-date overview of financial statement. It may also forecast the future revenue to give insights for your decision-making.

Now share us your opinion about them in the following pages!

Automation in Exact Online

My trust towards this function changes over time like this...



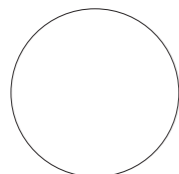
Automation in Exact Online

How do I trust its.....



Invoice Allocation

How often do I use automation



I think it works like this...

Performance

Outcome ●●●●●● Advantage ●●●●●●

Usefulness ●●●●●●

Process

Ease of Use ●●●●●● Reliability ●●●●●●

Quality ●●●●●● Understandability ●●●●●●

Purpose

Benevolence ●●●●●● Faith ●●●●●●

Certification ●●●●●● Initial Trust ●●●●●●

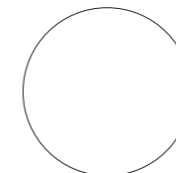
Automation in Exact Online

How do I trust its.....



Bank Allocation

How often do I use automation



I think it works like this...

Performance

Outcome ●●●●●● Advantage ●●●●●●

Usefulness ●●●●●●

Process

Ease of Use ●●●●●● Reliability ●●●●●●

Quality ●●●●●● Understandability ●●●●●●

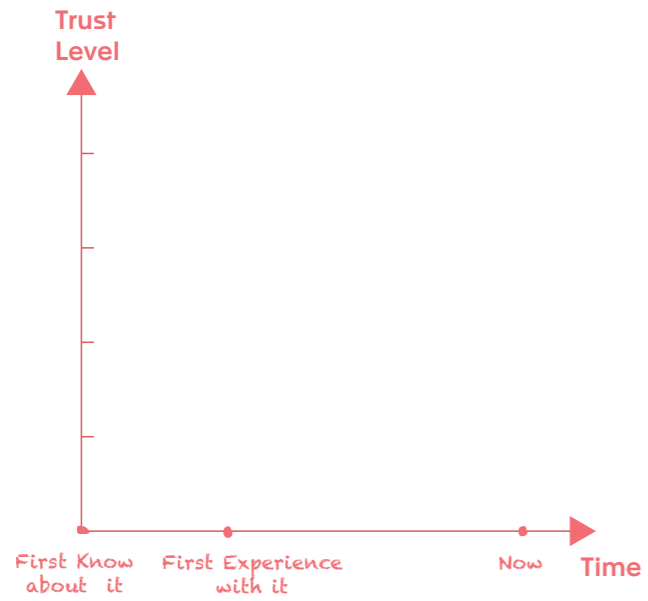
Purpose

Benevolence ●●●●●● Faith ●●●●●●

Certification ●●●●●● Initial Trust ●●●●●●

Automation in Exact Online

My trust towards this function changes over time like this...



Fears / Potential Errors / Risks

Automation in Exact Online



Fears / Potential Errors / Risks

Automation in Exact Online

How do I trust its.....



Overview / Forecast

I think it works like this...

Performance

Outcome ●●●●●● Advantage ●●●●●●
Usefulness ●●●●●●

Process

Ease of Use ●●●●●● Reliability ●●●●●●
Quality ●●●●●● Understandability ●●●●●●

Purpose

Benevolence ●●●●●● Faith ●●●●●●
Certification ●●●●●● Initial Trust ●●●●●●

Expectation

What is your ideal vision for the future automatic bookkeeping? Please sketch it.

If you are part of the Exact Online development team, what will you design to make the product more trustworthy for users?

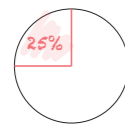


Example Card



Invoice Allocation

How often do I use automation



Draw in the pie chart to indicate how often you use automation compared to the manual way.

I think it works like this...

Explain how you think the process of the automation works, for example --

I think music recommendation works like this: it gets data about XXX, then recommend music that similar users are listening.

How do I trust its.....! Assess how you trust different aspects of this function by marking the dots. 1 dot means not trust it at all and 7 dots means fully trust.

Performance

Outcome Advantage

Usefulness

Process

Ease of Use Reliability

Quality Understandability

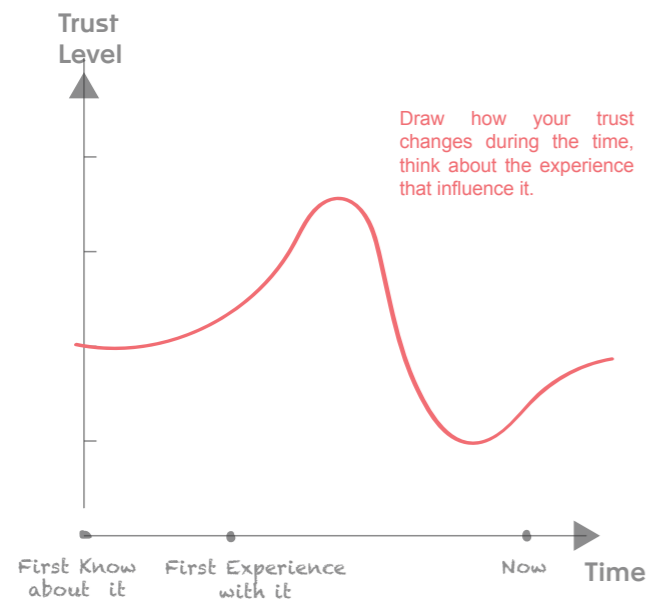
Purpose

Benevolence Faith

Certification Initial Trust

Example Card

My trust towards this function changes over time like this...



Draw how your trust changes during the time, think about the experience that influence it.

When I use this automatic function, I am worried about these potential errors/risks, and I have fears about...



What do you fear that hidners you to use the automatic functions? What kind of errors now will have happen when you are using the automatic functions? And what kind of unwanted outcome or situation will the errors lead to?

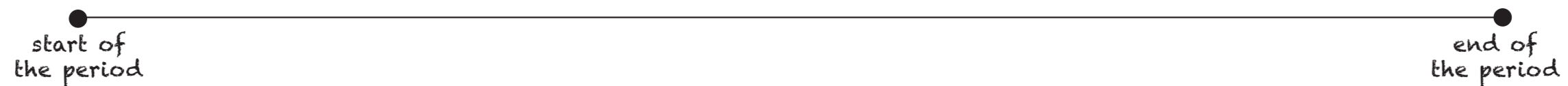
The workflow of my bookkeeping

























































What is the process of your bookkeeping work? Please map it with the action cards. If some steps are missing, you could use the blank cards to write them down.



A month/quarter/year in my bookkeeping life

What is the way you do bookkeeping in a period of time? Please map it on the timeline with the action cards. If some steps are missing, you could use the blank cards to write them down.



 Purchase Entry	 Pay Purchase Invoes	 Sales Invoice	 Send Invoice Reminder	 Import bank statement	 Allocation	 Check Result	 Purchase Entry	 Pay Purchase Invoes	 Sales Invoice	 Send Invoice Reminder	 Import bank statement	 Allocation	 Check Result
 Purchase Entry	 Pay Purchase Invoes	 Sales Invoice	 Send Invoice Reminder	 Import bank statement	 Allocation	 Check Result	 Purchase Entry	 Pay Purchase Invoes	 Sales Invoice	 Send Invoice Reminder	 Import bank statement	 Allocation	 Check Result
 Purchase Entry	 Pay Purchase Invoes	 Sales Invoice	 Send Invoice Reminder	 Import bank statement	 Allocation	 Check Result	 Purchase Entry	 Pay Purchase Invoes	 Sales Invoice	 Send Invoice Reminder	 Import bank statement	 Allocation	 Check Result
 Purchase Entry	 Pay Purchase Invoes	 Sales Invoice	 Send Invoice Reminder	 Import bank statement	 Allocation	 Check Result	 Purchase Entry	 Pay Purchase Invoes	 Sales Invoice	 Send Invoice Reminder	 Import bank statement	 Allocation	 Check Result


Appendix 5

Trust-Building Journey Guideline Toolkit

Trust Persona

Introduction

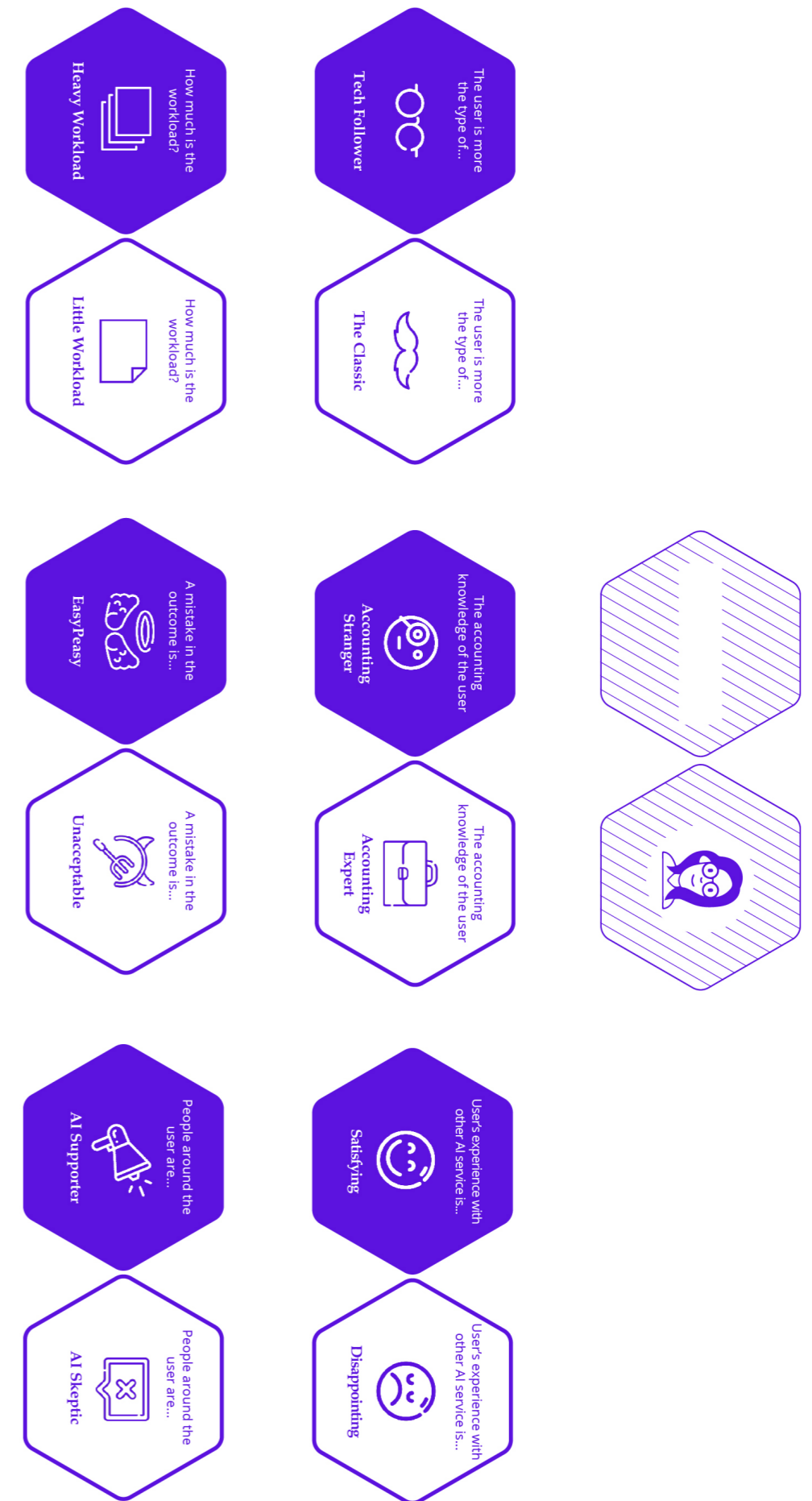
This tool is aimed to understand and profile the background elements that will influence the user's trust propensity. Six elements that will have an impact have been translated into questions on the modules. Each module has the question and two different answers to that question on different sides of it.



How to use

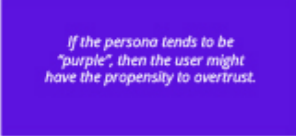
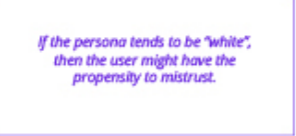
- Put the user module in the middle and write down your target user.
- Pick one of the trust module, look at the question on it.
- According to your understanding of the user, discuss and choose one of the answer and put that side up.
- Go to the next question until you have answered all the questions.
- Put the answer modules around the user module. See how these external elements are influencing the user's propensity to trust AI.
- Use the discussion template to see whether you could come up with some ideas or make some modification in the trust-building strategy according to your answers to the questions.

**It's okay to not have a certain answer if both answers are possibly true. The tool is to sensitize and provoke discussion rather to have a determined answer.*





- Heavy Workload**: How much is the workload? (Icon: stack of papers)
- Little Workload**: How much is the workload? (Icon: single sheet of paper)
- Tech Follower**: The user is more the type of... (Icon: glasses)
- The Classic**: The user is more the type of... (Icon: mustache)
- Easy Peasy**: A mistake in the outcome is... (Icon: smiley face)
- Accounting Stranger**: The accounting knowledge of the user (Icon: target symbol)
- Unacceptable**: A mistake in the outcome is... (Icon: hand with red X)
- Accounting Expert**: The accounting knowledge of the user (Icon: briefcase)
- AI Supporter**: People around the user are... (Icon: hand holding phone)
- Satisfying**: User's experience with other AI service is... (Icon: smiley face)
- AI Skeptic**: People around the user are... (Icon: hand with red X)
- Disappointing**: User's experience with other AI service is... (Icon: frowny face)

Which color is more dominant in the persona?

	
<i>If the persona tends to be "purple", then the user might have the propensity to overtrust.</i>	<i>If the persona tends to be "white", then the user might have the propensity to mistrust.</i>



Could it inspire you with new ideas or influence your trust strategy?
e.g. If the user tends to overtrust, then in the strategy we should focus on showing the real ability rather than only showing advantages.

The user is more the type of...

 Tech Follower	<i>A tech follower might be more willing to trust AI</i>	 The Classic	<i>A classic user might be reluctant to trust AI</i>
--	--	--	--

Could it inspire you with new ideas or influence your trust strategy?
e.g. If the user is a classic user, then put more attention to guide them to get used to it.

The accounting knowledge of the user

 Accounting Stranger	<i>If own capability is low, the user might trust AI more.</i>	 Accounting Expert	<i>If own capability is high, the user might be more suspicious.</i>
--	--	--	--

Could it inspire you with new ideas or influence your trust strategy?
e.g. If the user is professional, then gives them more control on the process or result.

User's experience with other AI service is...

 Satisfying	<i>User with good previous AI experience is more willing to trust</i>	 Disappointing	<i>User with bad previous AI experience tends not to trust</i>
---	---	--	--



Could it inspire you with new ideas or influence your trust strategy?
e.g. Design a trial session to eliminate the influence of the previous experience.

A mistake in the outcome is...

 Easy Peasy	<i>If tolerance with mistakes is high, the user might tend to trust AI</i>	 Unacceptable	<i>If tolerance with mistakes is low, the user might be critical with AI</i>
---	--	---	--



Could it inspire you with new ideas or influence your trust strategy?
e.g. If the user has low tolerance with mistakes, then we should focus more on mistake management.

How much is the workload?

 Heavy Workload	<i>If there is a lot of workload, the user will tend to trust AI</i>	 Little Workload	<i>If there is a little of workload, the user is more critical about AI ability</i>
---	--	--	---

Could it inspire you with new ideas or influence your trust strategy?
e.g. When heavy workload is identified, motivate the user to try AI function.

People around the user are...

 AI Supporter	<i>Positive attitude from others might make the user trust AI more</i>	 AI Skeptic	<i>Negative attitude from others might make the user trust AI less</i>
---	--	---	--

Could it inspire you with new ideas or influence your trust strategy?
e.g. Show real stories about satisfied users; Build community.

The Trust - Building Journey

| Introduction

Trust is a dynamic process rather than a settled characteristic. So let's go through the trust-building journey and see in each phase what elements will influence trust towards AI. By fulfilling these elements, we could transform the concern for trust into design directions. There are four different phases in the trust-building journey: Know, Experience, Use, Future.

Know: When the user first know about the AI function, for example, when hear the AI service from a sales person, or see the advertising on the website.

Experience: When the user first experience the AI function.

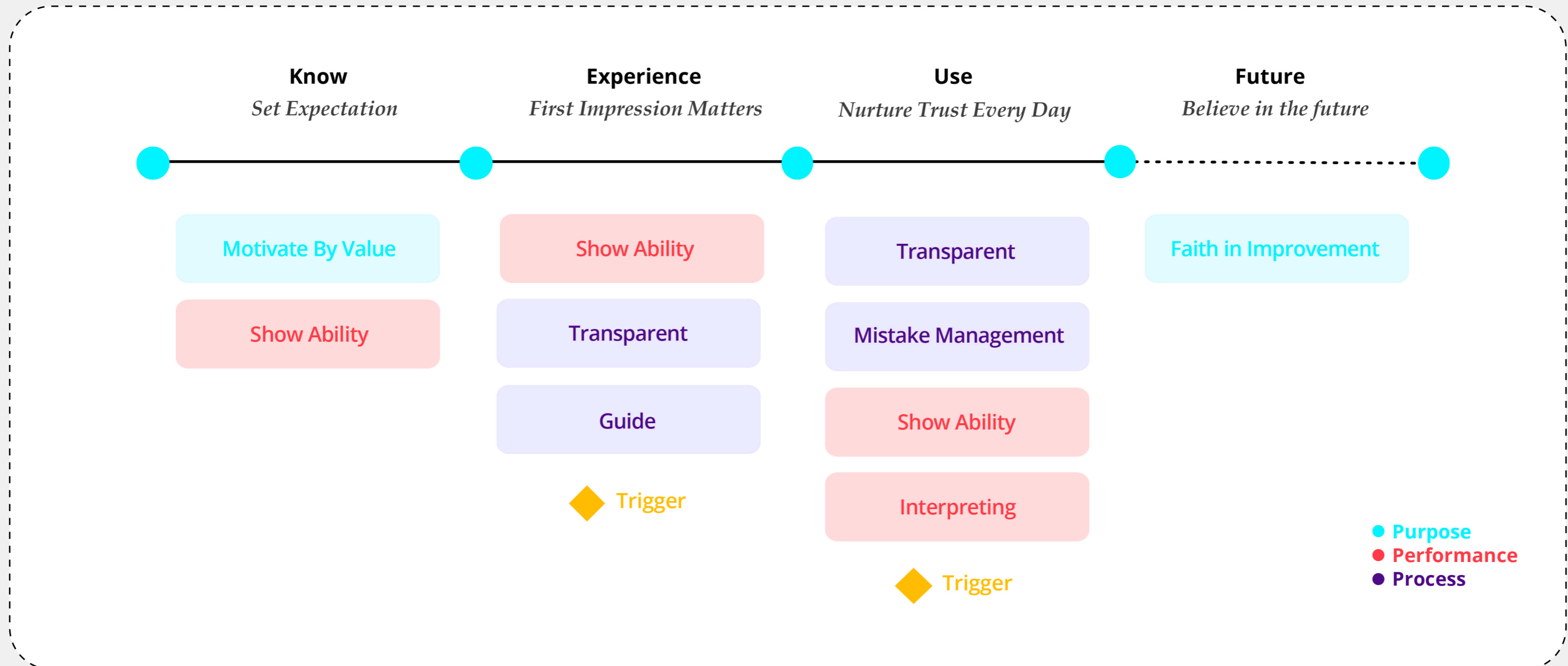
Use: During the daily use of the AI function.

Future: The user's future expectation of AI function.


| How to use

- 1 Go through the four phases of the trust-building journey.
- 2 In each phase, there will be boxes representing the relative elements.
- 3 Find the corresponding card in the deck, then read the explanation of this elements together.
- 4 Discuss how this element is considered now in this AI function or service.
- 5 If the element is not fulfilled or needs further attation, then brainstorm about ideas to improve this element to facilitate the trust of users towards AI. Write them down on the "idea cards".

*If you don't want to go through the whole journey, you could also directly look at the element cards and pick up the ones of high priority or interest you.



Priority: #3



"I use AI because it can help me achieve my value."

Motivate users to start using the AI function by communicating how it could support them to achieve their value instead of threatening them.

Accountant
They aim to be a business advisor and communicate more with clients.

Entrepreneur
They aim to have an up-to-date overview of the business.

- Phase -

Know

Motivate By Value

Purpose

Priority: #3



"AI is only to help, not to threaten."

Eliminate users' concern about being manipulated or replaced by AI. Convey the message that AI is not a threat, but only to help.

Accountant
Let them know AI is not to compete with them, but to assist them. They are still "the boss".


- Phase -

Know

Motivate By Value

Purpose

Priority: #1



"How useful is the AI function?"

Show the capability of AI and the quality of the results, so the users could trust properly and take the right action towards AI.


- Phase -

Know Experience Use

Show Ability

Performance

Priority: #1



"I could only trust AI when I am in control!"

Be transparent about process, show what has happened, why things happen, and be predictable on what is going to happen; Be transparent about results and provide easy check.

Accountant
Easy check and control the quality of the results.

Entrepreneur
Always know what is happening and control their business status.


- Phase -

Use Experience

Transparent

Process

Priority: #3



"Will my data be safe in the cloud?"

Be transparent about data. Show how it is collected and will be used to eliminate the concern about data privacy. Show that efforts are made to protect data. And give users control of their data.

Accountant
They think data is the result of their work, so they want to still have the ownership.

Entrepreneur
Company data is always precious. They may concern whether it will be stolen.


- Phase -

Use Experience

Transparent

Process

Priority: #1



"Mistake is the friend of AI but the enemy of trust."

AI tends to make mistakes, especially in the early phase. And it could make repetitive mistakes. Think about how to reduce mistakes, identify mistakes earlier and make them easy to correct. A good query support will also help.


- Phase -

Use

Mistake Management

Process

Priority: #1



"What is the advantage to use AI?"

Show the advantage of using AI, let users know what benefit they could get from AI and convince them to use it.


- Phase -

Know Experience Use

Show Ability

Performance

Priority: #2



"Is AI able to understand the situation as I do?"

Explore what are the real situation users will go through when using AI to finish their task, so AI could understand the meaning in real context and be "smart".


- Phase -

Use

Interpreting

Performance

Priority: #3



"It is hard to trust and get used to a new process."

Help users get used to the new way of working. Provide guidance about AI functions. Reduce their cost to learn.

Accountant
They are used to the old way of working, and don't want to spend time to learn the new way.


Entrepreneur
Financial process is a different mindset, they need easily-understandable process or education.

- Phase -

Experience

Guide


Process



Challenge

Challenge like over workload is annoying to users, that's why it's a good point to show AI ability for trust-building.


Trigger



Fun

Making it fun could win more opportunities for trust.

Trigger



Ease of Use

Being user-friendly is not only good for your product, but also for trust.

Trigger

Trust Brainstorm

Element:
<p>How is the existing strategy and product features doing with the element? <i>Discuss how this element is considered now.</i></p>
<p>What could be improved with the existing strategy and product feature regarding to the element?</p>
<p>What new strategy and features could be proposed to fulfill the element? <i>Could be different touchpoints, for example, marketing plan, service, website, product feature...</i></p>

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Appendix 6

Evaluation Instruction

Introduction:

A redesigned version of Exact Online to help users build proper trust towards AI functions.

Main functions:

1. My Automation
2. Review Mode
3. Inform

Test method:

Think Out Loud

Pre-testing Questionnaire

Scenario:

1. You are the bookkeeper of EarthMade Design. You haven't active any automatic functions in Exact Online yet.
2. You click into the "My Automation" page, go through the introduction of the AI functions.
3. You read the introduction of "Learn & Suggest" level of AI, think this fits your situation, so you enable this AI setting.
4. You go to the "Purchase" page, create a new purchase entry with the assistance of suggestions made by AI.
5. After using the "Learn & Suggest" level for a while, you go to the page "My Automation" to check the performance of your AI.
6. Introduce the "My Automation Panel"
7. You see that the accuracy of AI has improved 10% than last week, and you see the message from the chatbot that suggest you to change to a higher level of AI. So you think it's a good idea and go to the automation setting section.
8. You view the introduction of "Propose & Review" and "Autobook", and then decide to change to "Propose & Review".
9. You go to the homepage, then see there are notifications about what AI has been automatically processed for you.
10. You go to the "Purchase Page", here you have an overview of the proposals created by AI.
11. You first go through the list. You find one item that is of 2 star accuracy, and you wonder what is happening with it and why it is 2 star. So you go to the detailed page.
12. You see the process and know why it is 2 star accuracy. You close the window.
13. You go to the review mode, where there are completed proposals that wait for you to review and book.

14. When you are not sure with the Logo Design item, you put your mouse on it and it highlights the part in the invoice.
15. You find there is a mistake with the account in the proposal, so you edit it.
16. You change it to "04 marketing"
17. You save the change.
18. There shows similar proposals. You could apply the same change to them. But this time you choose to skip it.
19. You finished your review, click finish review. There shows a change of the financial status.
20. After using the "Propose & Review" for a while, you go to check your results from "My Automation"
21. You see a message from your chatbot, and you see that you have a high accuracy of "KreativeLab", so you go to set personalized setting.
22. You click "Add New" to add a new personalized setting.
23. You change the automation setting to "Autobook"
24. Go to the homepage
25. Go to the purchase page

After-testing Questionnaire

Interview:

My Automation:

Does the information provided in "My Automation Panel" seem interesting to you?
Does it give you enough insights that you would like to know about AI performance?

Do the three levels of automation help you get used to AI step by step?
Do you think proper functions are set with the three levels of automation?

Do you think the variabilities of setting your AI is useful to you?

Do you think the AI chatbot and the information of each function could help you with choosing the AI setting that suits you?

Review:

Do you think the new workflow of Exact Online could help you better collaborate with AI?

Information:

Do you think the information provided could make you trust the result and take proper actions to the result?

Overall:

Is the new design easy to understand and intuitive to use?

Overall, how do you think of the new design? Does the new design help you build proper trust towards AI?

What do you like about the new design?

What problems do you see in the new design?

What else do you suggest to improve about the new design?

Pre-Testing & After-Testing: Items to score:

I would like to use the Exact Online AI functions frequently.
I trust Exact Online AI functions.

I believe Exact Online AI could help me achieve my personal value.

I have the faith that Exact Online AI is making progress.

I am clear of the ability of Exact Online AI.

I am clear of the benefit of using Exact Online AI.

Exact Online AI could understand the real situation that I am facing.

It's easy for me to use and get used to work with Exact Online AI.

I am in control of what I want Exact Online AI to process for me.

I am in control of the quality of results from Exact Online AI functions.

I always know what Exact Online AI has processed for me.

I always know why Exact Online AI gives a certain result.

The result of Exact Online AI is predictable.

I feel it's easy to check the results of Exact Online AI.

I think I am in control of my data in Exact Online AI.

I could easily identify mistakes of Exact Online AI.

I could easily correct mistakes of Exact Online AI.

I am not afraid of having mistakes from Exact Online AI.

