Tax Technologies

Q1 North Carolina State University   INFORMED CONSENT FORM for RESEARCH   Title of Study: Technology Diffusion in Tax: An Examination of Three Assimilation Models   **Principal Investigators: Robin Pennington, Al Chen, Jennifer Dirienzo, Kathy Krawczyk**

You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. The purpose of this research study is to gain a better understanding of technology use in corporate tax departments. We are also interested in learning about how certain factors influence the use of technology in corporate tax departments.   To be a participant in this study, you must be knowledgeable about how your organization uses technology in the tax department.   In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form, it is your right to ask the researcher for clarification or more information. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above or the NC State IRB office as noted below.

There is no compensation for participation in this research.

There are minimal risks associated with participation in this research. There are no direct benefits; the indirect benefits are to further the body of knowledge regarding research into tax technologies in corporate tax departments. Your participation in this study could have implications for businesses planning to adopt technology in their corporate tax departments.   If you agree to participate in this study, you will be asked to participate in an online survey. The survey will include questions about your organization, your use of technology to complete tax processes, and your expectations about the challenges of implementing technology for tax processes. The survey will take about 15 minutes to complete.

The information in the study records will be kept confidential to the full extent allowed by law. Data will be stored securely on an NC State managed computer. No reference will be made in oral or written reports that could link you or your organization to the study. To help maximize the benefits of your participation in this project, by further contributing to science and our community, your de-identified data will be stored for future research and may be shared with other people.

If you have questions at any time about the study itself or the procedures implemented in this study, you may contact the researcher, Robin Pennington, robin_pennington@ncsu.edu, 919-515-4509.   If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact the NC State IRB Office via email at irb-director@ncsu.edu or via

phone at 1.919.515.4514. You can also find out more information about research, why you would or would not want to be in research, questions to ask as a research participant, and more information about your rights by going to this website: http://go.ncsu.edu/research-participant

Consent To Participate "I have read and understood the above information. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled." Click "yes" to consent.

○ Yes, I do consent. (1)

○ No, I do not consent. (2)

Q3 For the purposes of this survey, tax analytics and automation refers to **any technologies** that your tax department is currently using or is intending to use in the future. Examples include but are not limited to: Spreadsheets, Business Intelligence software, Dashboards, Scorecards, Visualization software, Statistical Analysis software, Robotic Process Automation software, Artificial Intelligence software, Programming languages (Python, R, etc.)

Initiation

Please indicate how significant each of the following potential benefits of tax analytics and automation technologies was rated when your organization was *considering whether* to use tax analytics and automation technologies in your corporate tax department.

	Not Significant (1)	... (2)	Somewhat Significant (3)	... (4)	Very Significant (5)	Don't Know (6)
To reduce cost in the tax department (1)						
To expand tax services in house (2)						
To improve coordination of the tax department with other departments (4)						
To enhance tax reporting (5)						
To analyze large tax data sets (6)						
To increase tax department productivity (7)						

Adoption — aggregate to form DV

Q6

Check the box describing applications of tax analytics and automation technologies in your corporate tax department processes (check as many as apply):

1 ☑ Automation of repetitive or rules based tasks currently performed by tax professionals (examples: state apportionment, tax treatment of travel expenses, like-kind exchange matching, tax depreciation classifications, etc. (1)

2 ☐ Data mining and the process of finding previously unknown relationships and patterns (examples: tax data exploration, fraud detection, etc.) (2)

3 ☐ Leveraging advanced statistical or computer science tools to mimic human decision making in tax (examples: artificial intelligence) (3)

4 ☑ Other (Please describe) (4)

_____

Qualitative Score?

Categorical   1   2   3
*   early   mid   advanced*

(based PWC paper)

Routinization?

If your organization has used tax analytics and automation in your corporate tax department, please estimate how integrated the technology is in the following processes:

	Not at all integrated (1)	... (2)	Somewhat integrated (3)	... (4)	Fully integrated (5)	Don't know (6)
Tax compliance (1)	○	○	○	○	○	○
Tax provision (2)	○	○	○	○	○	○
Tax planning (3)	○	○	○	○	○	○
Tax strategy (4)	○	○	○	○	○	○

Technology Readiness

Q35 ?

1. What type of enterprise database system does your company use?

NO

_____

_____

_____

_____

_____

Q40 2. ? Do you have a management level tax professional for analytics and/or automation? If so, what is the title of the position?

yes

_____

_____

_____

_____

_____

Technology Readiness

Q36 3. Approximately how many IT professionals are located in your organization?

yes

Q37 4. Approximately how many IT professionals are available to assist your tax department in the adoption and/or use of tax analytics and automation technologies?

yes

Q38 5. How many tax professionals are in your tax department?

_____

_____

_____

_____

_____

?

Q39 6. How many tax professionals have expertise in tax analytics and automation technologies?

_____

_____

yes

_____

_____

_____

Categorical for Questions 40, 36, 37, 39

Technology Readiness

Q22 Please check the box describing technologies used in your corporate tax department (check as many as apply):

Spreadsheets (1)

Business intelligence software (2)

Dashboards (3)

Scorecards (4)

Visualization software (5)

Statistical Analysis software (6)

Robotic process automation software (7)

Artificial intelligence software (8)

Programming languages (Python, R, etc) (10)

others (11) _____

Categorical based PwC

Q23

Technology Integration

Please rate the extent to which...

	Not at all integrated (1)	... (2)	Somewhat integrated (3)	... (4)	Fully integrated (5)	Don't know (6)
Your tax systems are electronically integrated with your company's databases and information systems (1)		○				
Your company's databases and information systems are electronically integrated with those of your company's business partners (2)						

Q26 Firm Size

Approximately how many employees does your organization have in total, including all branches, divisions, and subsidiaries?

_____

Geographic Scope

dictomous

Q24 Please check the box that describes the geographic extent of your company's operations (check as many as apply):

☐ Your organization has one establishment. (1)

☐ Your organization has more than one establishment. (2)

☐ Your organization has establishments outside of your state (3)

☐ Your organization has establishments outside your country. (4)

domestic
international

Q27 How many foreign subsidiaries to does your company have?

○ 0 (1)

○ 1-20 (2)

○ Over 20 (3)

dictomous
20 or less
over 20

Trading Globalization

Q29

Approximately what percent of your company's total sales are from outside your country?

Set up % categories (3-5)

Q41

Approximately what percent of your company's total procurement spending is from outside your country?

Set up % categories (3-5)

Manage obstacles

Q30 Please rate how significant the following **obstacles** are to your corporate tax department's ability to conduct tax analytics and automation.

	Not Significant (1)	... (2)	Somewhat Significant (3)	... (4)	Very Significant (5)	Don't know (6)
Making needed organizational changes for Tax Analytics and Automation implementation (1)	○	○	○	○	○	○
Integrating Tax Analytics and Automation into your overall tax strategy and business process (2)	○	○	○	○	○	○
Lacking staff with Tax Analytics and Automation expertise (3)	○	○	○	○	○	○
Other Obstacles (4)	○	○	○	○	○	○

look at see if there are trends

Q3 *Competition intensity*

Please rate the degree to which your company's business activities are affected by

	Not at all Affected (1)	... (2)	Somewhat Affected (3)	... (4)	Significantly Affected (5)	Don't know (6)
Competitors in your local area (1)						
Competitors inside your country (2)						
Competitors from outside your country (3)						

Regulatory Environment

Please rate the degree to which you agree with the following statements.

	Don't Agree (1)	... (2)	Agree Somewhat (3)	... (4)	Agree Completely (5)	Don't Know (6)
Government(s) are utilizing tax analytics and automation (1)	○	○	○	○	○	○
Government(s) require the use of tax analytics and automation for tax compliance (2)	○	○	○	○	○	○
Tax laws support the use of tax analytics and automation (3)	○	○	○	○	○	○
There is adequate legal protection for the use of tax analytics and automation information (4)	○	○	○	○	○	○

Q42
1. What is your job title?

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Q45 2. How long have you been in your current position?

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Q43 3.   Who does the head of the tax department report to in your organization (example: CEO, CFO, Treasury, etc.)

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Q44 4.   If this is not your position, what is the title of the head of the tax department in your organization?

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Q46 5.   What industry does your company belong to?

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Q47 6.   In what year was your company founded?

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Q48 7. In what state or U.S. Territory is your company currently headquartered?

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Q49 8. In what city is your company currently headquartered?

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Q51 To receive a summary of the results, please enter your email below.

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