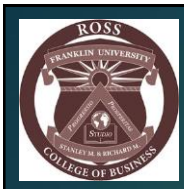


1

Culture of control and large-scale agile transformation success

Presented in Partial Fulfilment of the Requirements for Doctorate of Business Administration in the Ross College of Business at Franklin University

Steven Martin, MBA, MS

Dissertation Committee
Lewis Chongwony, Ph.D., Chair
Kenneth Knox, Ph.D., Member
Timothy Reymann, Ph.D., Member

1

Researcher's Background

2

- Education
  - BS, Mechanical Engineering, Cal Poly State University, San Luis Obispo, CA
  - MS, Automation Engineering, Cal State Northridge, Northridge, CA
  - MBA, Marketing, Suffolk University, Boston, MA
- Academic Experience
  - 2018-2019, Adjunct Professor, College of Professional Studies, Northeastern University, Boston, MA
- Professional Experience
  - 2007 – Current, Consultant, focus in Agility and Agile
    - 2019 – Current, Agile Velocity, Principal Enterprise Agility Coach
  - 1999-2007, Amgen, Specialist Information Systems Business Analyst
- Professional Certifications
  - Scrum Alliance: Certified Scrum Trainer (CST), Certified Agile Leadership (CAL) Educator
  - Project Management Institute: Project Management Professional (PMP), PMI-ACP

2

Topic Background

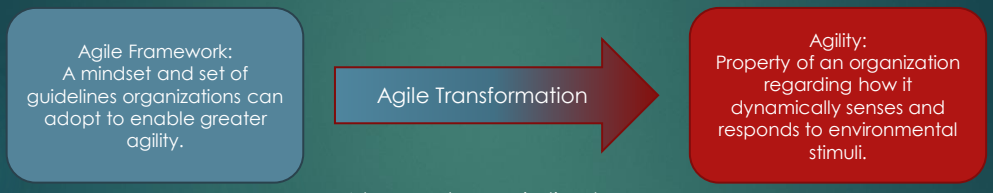
3

- Agility is needed for companies to survive in today's uncertain business environment (Anca-Ioana, 2019)
  - Agility - "the ability to rapidly and thoughtfully respond to changing conditions" (Kocu, 2018, p. 60)
  - 94% of companies stated agility was critical, but 6% said highly agile (Walsh & Volini, 2017)
  - 50% of Fortune 500 companies at risk to close over the next 10 yeas (Pulakos et al., 2019)
- Agile frameworks can be used to help organization increase their agility (Aghina et al., 2020; Denning, 2018; Scrum Alliance, 2018)
  - Umbrella term for minimizing bureaucracy, delivering products iteratively and incrementally, and responding to shifts in environment, using a non-sequential approach (Poppendieck & Cusumano, 2012)
  - Emphasize collaboration and valuing people to rapidly deliver practical solutions in dynamic environments (Martin, 2017)

3

Relationship of Agility and Agile Frameworks

4



A large-scale organizational change initiative to implement agile frameworks across entire firms or in large multi-team settings (Fuchs & Hess, 2018) to increase agility (Denning, 2018)

4

Problem Statement

5

- To embrace agility, many organizations must undergo a transformation (Brosseau et al., 2019)
  - Organizations must go beyond methodology, fundamentally shifting how they think and holistically operate (Brosseau et al., 2019; Denning, 2018)
- Many challenges to implementing agile frameworks including resistance to change, coordinating across teams, integrating agile and non-agile functions, lack of agile knowledge
- Culture listed as top challenge or barrier of large-scale agile framework adoption (Denning, 2018; Scrum Alliance, 2018; VersionOne, 2020)
  - Shift away from command-and-control bureaucracies to:
    - Shared leadership and self-organization (Dikert et al., 2016; Kalenda et al., 2018)
    - Increased collaboration and holistic organizational systems thinking (Denning, 2019)
  - Not just the delivery teams, but all levels – processes, roles, tools, etc. (Ebert & Passivaara, 2017)

5

Purpose of Study

6

- Purpose of study:
  - Assertion by Aghina et al. (2020) that the starting point of an organization's culture influences how much agility an organization can achieve.
    - Investigate level of control in the organization's culture and strength of culture at start of a large-scale agile transformation and its impact on large-scale agile transformation success

6

Research Questions

7

- RQ1: Do organizations with a low controlling culture at the outset of an agile transformation have greater success with achieving their transformation goals than organizations with a high controlling culture?
  - H1o: There is no significant difference in organizations attaining their agile transformation goals between organizations with a culture of lower control at the start of an agile transformation and organizations with a culture of higher control at the start of an agile transformation.
  - H1a: There is a significant difference in organizations attaining their agile transformation goals between organizations with a culture of lower control at the start of an agile transformation and organizations with a culture of higher control at the start of an agile transformation.

7

Research Questions

8

- RQ2: Does the strength of an organization's culture at the start of an agile transformation influence how well the organization achieves their transformation goals?
  - H2o: There is no significant relationship between the strength of culture at the start of an agile transformation and the amount of success of achieving agile transformation goals.
  - H2a: There is a significant relationship between the strength of culture at the start of an agile transformation and the amount of success of achieving agile transformation goals.

8

Definition of Terms

9

- **Agility:** "often referred to as organizational agility—is the capability to quickly sense and adapt to external and internal changes to deliver relevant results in a productive and cost-effective manner" (PMI, 2017, p. 2)
- **Agile:** "is a mindset based on a set of key values and principles designed to better enable collaborative work and deliver continuous value through a 'people-first' orientation" (PMI, 2017, p. 2)
- **Agile Framework:** A set of processes and practices, such as Scrum, Kanban, or Extreme Programming, that follow in the conventions of the agile values and principles, to enable agile to be executed at an organization (Agile Alliance, 2020)
- **Agile Transformation:** "is an ongoing, dynamic effort to develop an organization's ability to adapt rapidly within a fast-changing environment and achieve maximum business value by engaging people, improving processes, and enhancing culture" (PMI, 2017, p. 2)
- **Large-Scale Agile Transformation Initiative:** A change program to introduce agile to an organization that impacts at a minimum either six teams or 50 persons (Dikert et al., 2016).

9

Importance of the Research

10

- Due to the newness of many large-scale agile transformation initiatives, there are a limited number of studies that focus upon how an organization adapts to using agile across the enterprise (Aghina et al., 2020; Dumitriu et al., 2019; Ebert & Paasivaara, 2017).
- Helps practitioners/implementers
  - Implementing agile at large-scale requires shifting of culture (Broseau et al., 2019; Denning, 2019; Dikert et al., 2016; Sidky, 2017)
    - Only 19% culture shift change initiative are successful (Gibbons, 2015)

10

Assumptions, Limitations, Delimitations

11

- Assumptions
  - Truthful and honest; Self-assessing questionnaire – may have own bias
  - Sample was representative of the population
  - Respondents have informed experience; need at least one year experience in last five years
- Limitations
  - Quantitative study – inferences about a population; missing explanation
  - Data collected in a short period of time during Covid
  - Chain referral & open survey access
- Delimitations
  - Need to be large-scale agile
  - Geographic – only US
  - For-profit – different drivers than not-for-profit (Zhu, Wang, & Bart, 2016) and public (Nutt, 2006) organizations

11

Theoretical Foundation

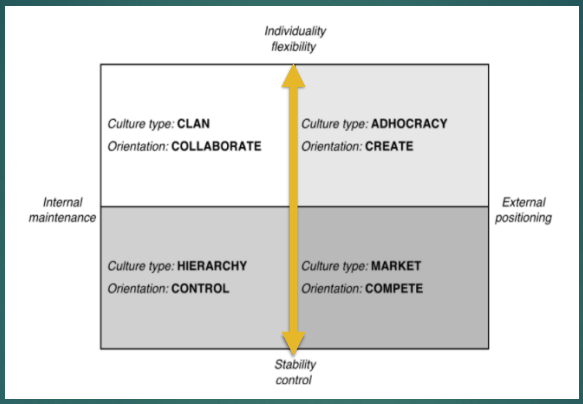
12

- Complexity Theory
  - Agile project management evolves from complexity theory (Owen et al., 2006)
  - Emergence, self-organization, feedback, and chaos (Turner & Baker, 2019)
    - Includes a systems view (i.e. looking at the whole), but also asserts future states are unpredictable and follows a dynamic, non-linear path (p.11)
- Prospect Theory
  - While more associated with making choices to avoid loss in risk in Finance (Shleifer, 2012), can be used to explain resistance to organizational change (Adrieanessen & Johannessen, 2016)
    - Fear of loss of rights, position, and other perceptions of value (p. 85)
    - Loss biologically processed in same part of brain as threats (Shleifer, 2012)
  - Failure to reach goals in large-scale agile transformations could be due to resistance (Dikert et al., 2016) and loss (PMI, 2017)

12

Competing Values Framework

13

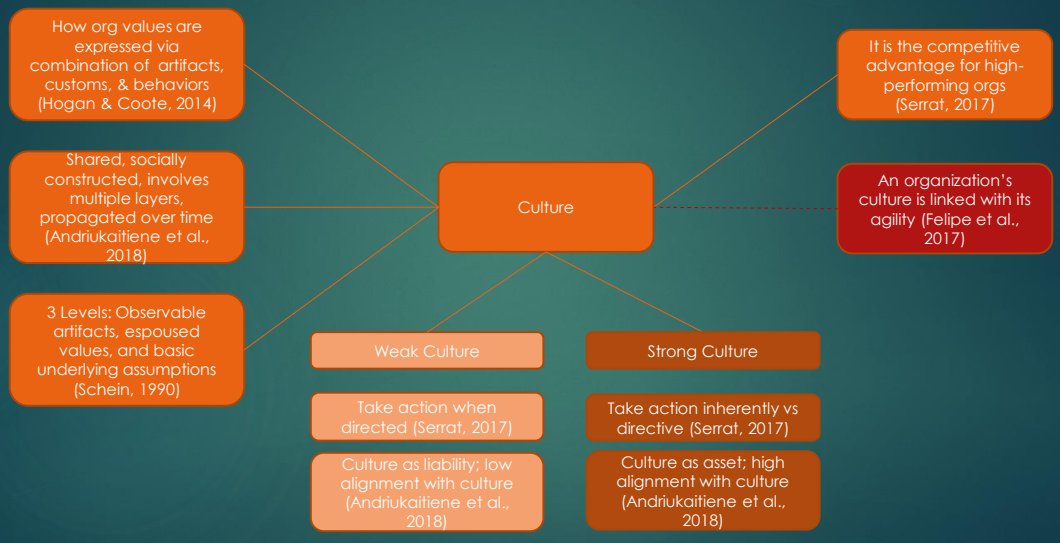


Note. From "Figure 1.2 Core dimensions of the Competing Values Framework" by K. Cameron, R. Quinn, J. Degraff, & A. Thakor, 2014, *Competing Values Leadership* (2nd ed.), p. 8. Copyright by Edward Elgar Publishing Limited.

13

Literature Review: Organizational Culture

14



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Literature Review: Agility

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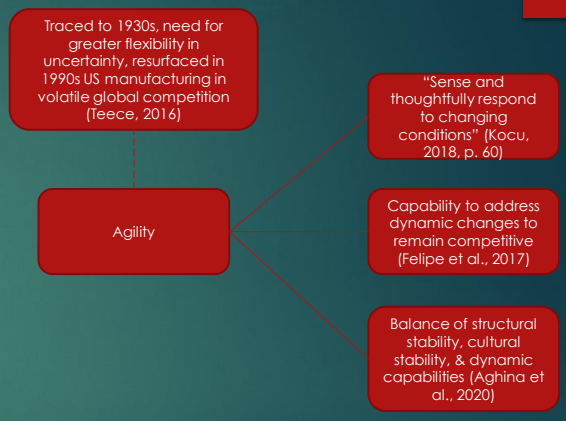

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Literature Review: Agility & Agile

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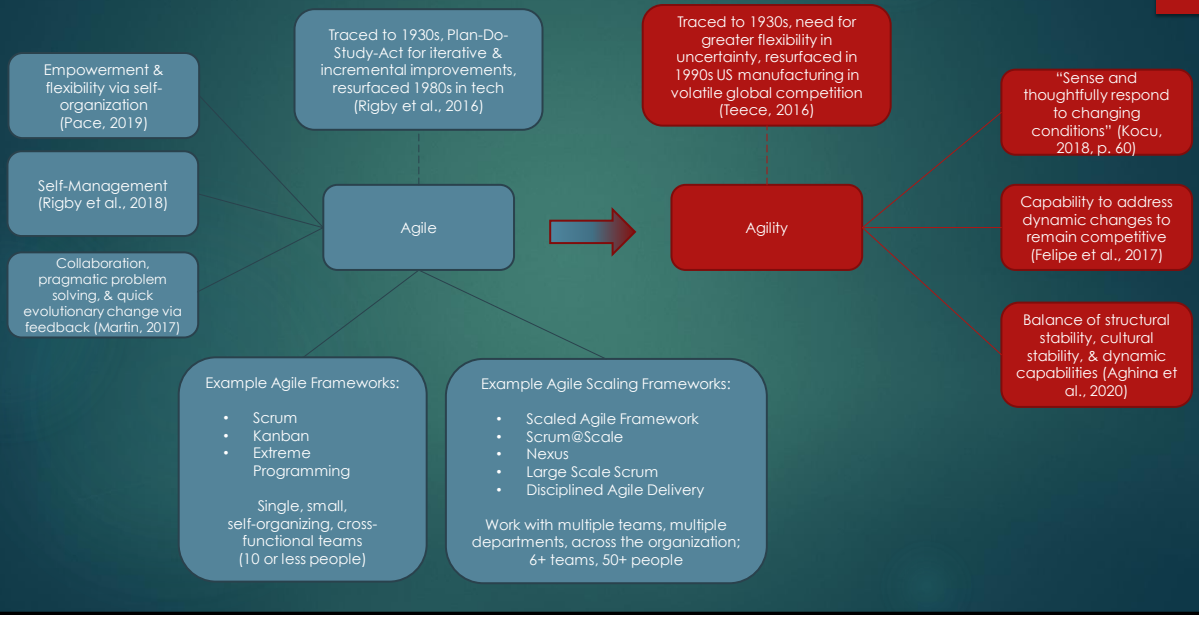

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Literature Review: Large-Scale Agile Transformations

17

- Agile adoptions often necessitate changing the culture of an entire organization (Dikert, et al., 2016; Sidky, 2017).
  - Shift from command-and-control and bureaucracy to employee enablement, continuous innovation, etc. (Denning, 2019)
  - Shift from top-down drivers to shared leadership and self-organization in agile required altering mindsets (Dikert et al., 2016; Kalenda et al., 2018)
  - Need for increased collaboration and holistic organizational systems thinking (Denning, 2019)
  - Organizations must go beyond methodology, fundamentally shifting how they think and holistically operate (Brosseau et al., 2019; Denning, 2018)
- Culture seen as a top influential impediment to agile adoption (Dikert et al., 2016, Korhonen, 2013, Scrum Alliance, 2018; VersionOne, 2020)
  - Clan and adhocracy cultures align better with flexibility needed in agile (Ranjeeth, 2018)
  - Market and hierarchy cultures align more with stability and control (Cameron et al., 2014)

17

Literature gap – what am I trying to fill?

18

- Assertion by Aghina et al. (2020) that the starting point of an organization's culture influences how much agility an organization can achieve.
  - Culture change is hard
    - Culture is deeply entrenched in how an organization thinks and operates (Maseko, 2017; Schein, 1986)
    - Success builds natural resistance to change (Dale Carnegie Research Institute, 2017)
- Much literature to help address barriers of large-scale agile transformations are "best educated guesses" (Morgan, 2018, p. 21)

18

Research Design

19

- Quantitative – gather an analyze objective numerical data, such that:
  - An inference to a population could be made from a sample (Querios et al., 2017)
  - A comparison of segmented groupings (Sukamolson, 2007)
- Survey design
  - Anonymous online questionnaire
  - Instrument is a hybrid known-instrument and customized questionnaire
    - Organizational Culture Assessment Instrument (OCAI): Six questions to classify culture (Cameron & Quinn, 2011)
    - Success Index: 11 Customized questions, with nine based upon Annual State of Agile survey (VersionOne, 2020) and two custom questions. Seven-point Likert scale.
    - Culture Strength Index: Four custom questions, two based in work by Serrat (2017) and two Andriukaitiene et al. (2018). Seven-point Likert scale.

19

Instrument Validity and Reliability

20

- Four experts (2 doctorates, 2 industry) for face and content validity
- Cronbach's alpha for reliability
- Pilot of survey prior to final study execution
  - No data from the survey used in the final study; all data purged

20

Research Population and Sample

21

Criteria	Rationale
The respondent must work at a for-profit company, either publicly or privately owned.	Non-profit organizations (Zhu, Wang, & Bart, 2016) and government agencies (Nutt, 2006) have challenges, strategic motivators, and decision-making processes dissimilar to for-profit organizations
The respondent must work at a company in a location within the United States.	Reduces the potential for variation in organizational culture due to national culture
The respondent must have at least one year experience as a participant or leading an agile transformation initiative in the past five years.	One to two years is needed to become proficient in a role (Oakes, 2012). Five years is suggested as long enough for agile transformation change to arise yet short enough where distortion of details over time may reduce accuracy of data used to infer results.
The respondent must work at a company that executed a large-scale agile transformation.	Culture shift and results from a large-scale organizational change such as an agile transformation initiative takes time and involves multiple teams across many parts of an organization.

21

Sample Size and Sampling Plan

22

- Sample Size
  - Green's (1991) rule-of-thumb: n > 104 + predictors – two independent variables, or n >106
    - Similar studies n=172 (Felipe et al., 2017) and n=184 (Lenberg et al., 2019) – target 175
  - Similar studies had 22 companies (Aghina et al., 2020) and 42 companies (Dikert et al., 2016)
    - Aim for the average (~30 companies) as minimum
- Sampling Plan
  - Internet-based surveys are efficient and cost-effective for academic research (Leiner, 2019)
  - Four levels of recruitment
    - Agile Consulting Partners – personally known to this researcher
    - Network beyond Agile Consulting Partners – chain referral or snowball technique
    - LinkedIn – Call to action in ~8 "Large Scale Agile" topic groups
    - Professional Societies – Call to action in social media (Agile Austin, Agile Denver, Agile New England, Agile D.C., Women in Agile, etc.)

22

Results - Response Rate

23

Category	Number of Persons
Total attempted survey	304
Disqualified (not meet participant criteria)	63
Disqualified (all neutral/centerline responses)	1
Incomplete Survey	97
Total Valid Surveys (n)	143
Valid Response Rate	47%

23

Results - Demographics

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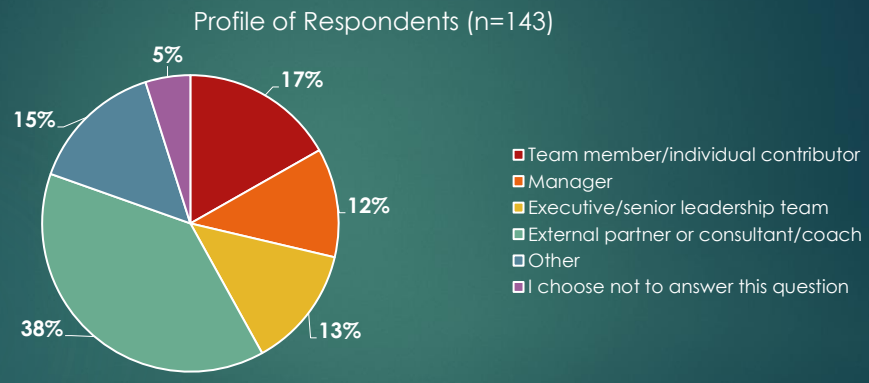

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Results - Demographics

25

Top 7 Industries represented

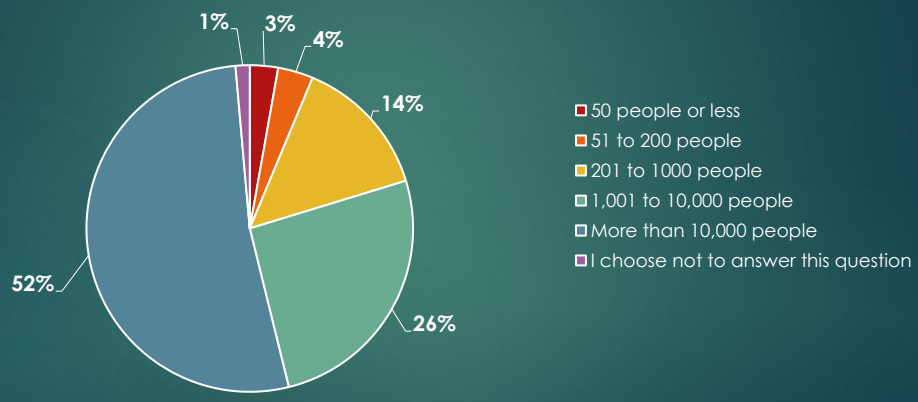
Category	Number of Persons	% of Respondents
Financial Services & Insurance	45	31.5%
Technology	31	21.7%
Healthcare and Pharmaceuticals	20	14.0%
Media/Entertainment & Hospitality	7	4.9%
Professional Services & Consulting	6	4.2%
Industrial/Manufacturing	5	3.5%
Retail	5	3.5%

25

Results - Demographics

26

Size of Companies (n=143)



26

Research Analysis, RQ1

27

RQ1: Do organizations with a low controlling culture at the outset of an agile transformation have greater success with achieving their transformation goals than organizations with a high controlling culture?

Approach: t test, comparing custom Success Index by groups coded as Low Control or High Control

- Independent variable: Grouping of culture of level of control at start of large-scale agile transformation
  - Categorized using Organization Culture Assessment Instrument (OCAI) (Cameron & Quinn, 2011)
- Dependent variable: Level of success observed from large-scale agile transformation
  - Custom composite variable denoted as the Success Index calculated by averaging 11 aspects of success typically seen by implementing agile frameworks via a seven-point Likert scale (1=significantly worse, 7=significantly better)

27

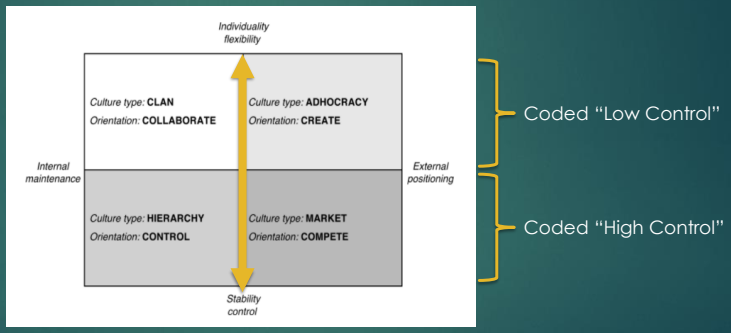
Coding: Low Control and High Control via OCAI

28

Utilizing Organizational Culture Assessment Instrument (OCAI) (Cameron & Quinn, 2011), coded as follows:

Low Control = Predominant culture of either Clan (A) or Adhocracy (B) (n=21)

High Control = Predominant culture of either Market (C) or Hierarchy (D) (n=122)



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28

The Success Index

29

- The Success Index consisted of averaging together responses for up to 11 benefits seen from adopting agile frameworks
  - Seven-point Likert scale (1=significantly worse, 7=significantly better)
  - Could select "Did not apply" or "I choose not to answer"
- Cronbach's alpha most preferred and general indication of reliability of sample of how the instrument was used (Osborne & Banjanovic, 2016)
  - Cronbach's alpha > 0.7 – adequate reliability
  - Cronbach's alpha > 0.8 – good reliability
  - Cronbach's alpha > 0.9 – excellent reliability
  - SAS calculation of Cronbach's alpha for Success Index = 0.888

Source	Characteristic
VersionOne (2020)	Accelerate product or software delivery
	Enhance ability to manage changing priorities
	Increase productivity
	Improve Business/Information Technology Alignment
	Enhance quality
	Enhance delivery predictability
	Reduce project risk
	Improve project visibility
	Improve morale
Custom	Department-level success
	Organization-wide success

29

Research Analysis, RQ1

30

Descriptive Statistics for Success Index Grouped By High Control and Low Control

Grouping	N	Mean	Std Dev	Minimum Value	Maximum Value	95% CL (Low)	95% CL (High)
High_Control	122	5.1751	1.142	1.5455	6.8182	4.9704	5.3798
Low_Control	21	5.7798	1.1589	2.9091	7	5.2522	6.3073

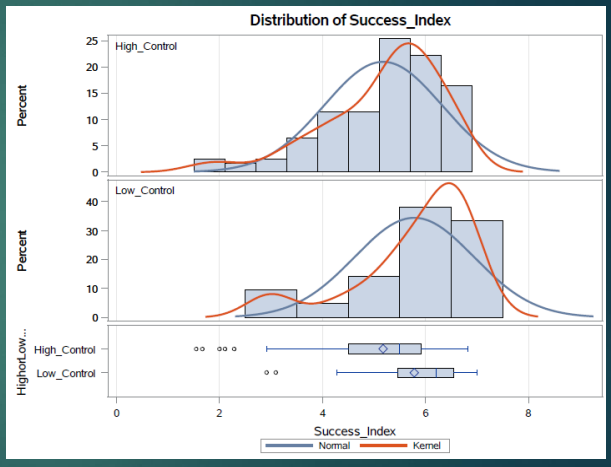
- Note both groups (i.e. coded as either low control culture and high control culture at the start of an agile transformation) have success index with 95% CL "low" value higher than neutral point of 4.00 – no difference.
  - Both groups indicated they achieved of a level of success
  - The group coded with low control (*M*=5.7798) had a mean higher than group coded as high control (*M*=5.1751)

30

Research Analysis, RQ1

31

- Criteria for t test (Ott & Longnecker, 2016):
  1. Sample independence
  2. Spatial correlation
  3. Equal population variance
  4. Data normality
- Test for normality failed
  - From SAS: Shapiro-Wilk (W), Kolmogorov-Smirnov (D), Cramer-von Mises (W-Sq), and Anderson-Darling (A-Sq) *all* with p-values less than 0.05
  - Distribution skew to the left
  - Had to use different statistical test



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Research Analysis, RQ1

32

- Wilcoxon rank sum test criteria (Ott & Longnecker, 2016)
  - Can have greater power when data are non-normally distributed
  - Criteria includes:
    - Independent samples with equal population distributions (p-value .8669, F value 1.03)
    - Distributions can be shifted left or right of each other
    - Non-normal distribution
- Wilcoxon rank sum test output from SAS
  - With p-value of 0.006 less than alpha of 0.05, reject null hypothesis H1o

Z	Pr > |Z|
2.75	0.006

H1a: There is a significant difference in organizations attaining their agile transformation goals between organizations with a culture of lower control at the start of an agile transformation and organizations with a culture of higher control at the start of an agile transformation.

32

Research Analysis, RQ1 Additional Insights

33

- Check for bias due to largest population in sample as external consultants
- Consultants must be careful of negative bias (Orr & Orr, 2013)
- ANOVA of Success Index by Role
  - Group A: External Consultants (n=53)
  - Group B: Those that chose not to identify their role (n=7)
  - Group C: Internal personnel (n=83)
- With p-value of 0.6534 greater than alpha of 0.05, fail to reject null hypothesis that all means of the Success Index composite variable are equal
  - There is no bias between the groups above

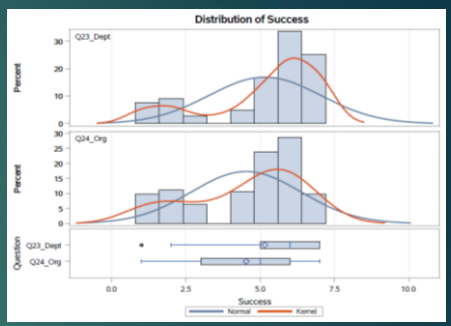
F Value	Pr > F
0.43	0.6534

33

Research Analysis, RQ1 Additional Insights

34

- Departmental Success vs Organization-Wide Success
  - Note two peaks
  - Department distribution profile shifted from Organization profile
  - Do we have something going on with *Span of Control* or *Sphere of Influence* and the systems theory aspects included in complexity theory?
- Wilcoxon rank sum test
  - With p-value of 0.0004 less than alpha of 0.05, reject null hypothesis that the success attained at the department-level was the same as the success attained at the organization-wide level.
    - Greater success seen at the department-level versus organization-wide



Z	Pr > |Z|
3.5276	0.0004

34

Research Analysis, RQ2

35

RQ2: Does the strength of an organization's culture at the start of an agile transformation influence how well the organization achieves their transformation goals?

Approach: Linear regression analysis, inspection of the r-square by plotting Success Index against Culture Strength

- Independent variable: Continuous variable representing strength of culture at start of large-scale agile transformation
  - Custom composite variable denoted as the Culture Strength Index by averaging 4 aspects of culture strength via a seven-point Likert scale (1=weak culture, 7 = strong culture)
- Dependent variable: Level of success observed from large-scale agile transformation
  - Custom composite variable denoted as the Success Index calculated by averaging 11 aspects of success typically seen by implementing agile frameworks via a seven-point Likert scale (1=significantly worse, 7=significantly better)
  - Use the same data already described for RQ1

35

The Culture Strength Index

36

- The Culture Strength Index consisted of averaging together responses for four measures of culture strength
  - Seven-point Likert scale (1=weak, 7=strong)
  - Could select "Did not apply" or "I choose not to answer"

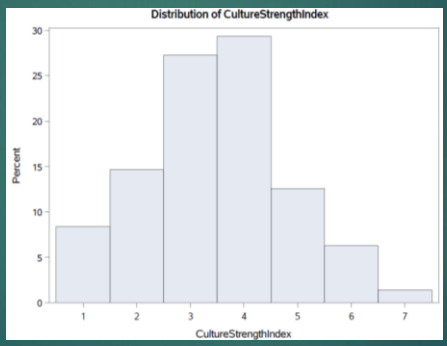
Source	Characteristic
Serrat (2017)	Q10-Permissions needed from the top to make change
	Q12-Comfort in taking initiative without requiring directives
Andriukaitiene et al. (2018)	Q11-Personal alignment with company's culture
	Q13-Company culture was an asset, not an inhibitor

36

Research Analysis, RQ2

37

- The Culture Strength Index indicating a somewhat normal data distribution



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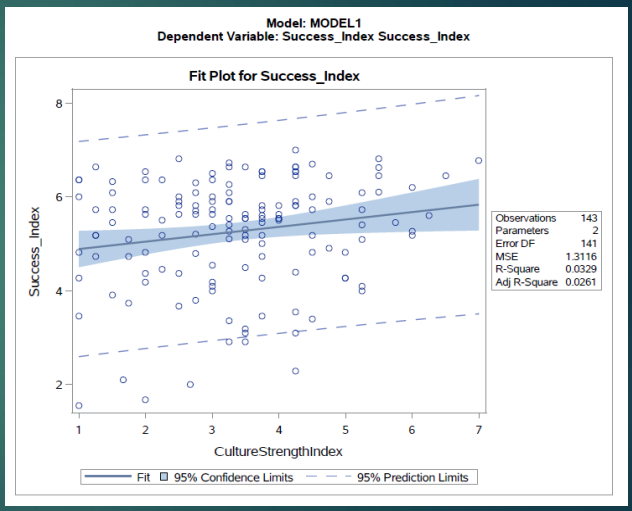
Research Analysis, RQ2

38

Plot of Success Index versus Culture Strength Index

- Vast scatter – no pattern, majority not in 95% CL
  - R-square = 0.0329
    - Only ~3% of the model accounts for variability
- Correlation Coefficient is square root of Coefficient of Determination (r-square)
  - Pearson Correlation Coefficient from SAS = 0.181
  - Vastly lower than value of 0.6, indicating poor correlation



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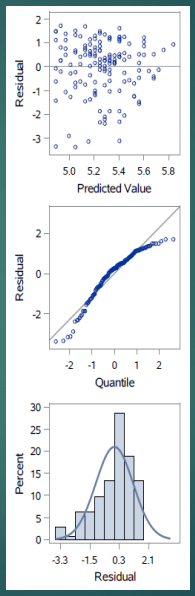
Research Analysis, RQ2

- Criteria for regression analysis (Ott & Longnecker, 2016):
  1. Assumption of linearity, sum of errors is zero in predictive model
  2. Equal variance of errors
  3. Errors independence
  4. Normal distribution of errors
- Test failures
  - Fails assumption of linearity (#1)
  - Fails equal variance of errors (#2)



- Desire even distribution left to right, up and down.
- Fail Test #2 – non-equal variance in errors (residuals vs predicted value)

- Desire for plotted points to be as close as possible line
- Observe some drop off at both ends of the plot
- Moderately Pass Test #4 – Data normality

- Is there a bell-curve?
- Moderately Pass Test #4 – Data normality

39

The Culture Strength Index

- Cronbach's alpha most preferred and general indication of reliability of sample of how the instrument was used (Osborne & Banjanovic, 2016)
  - Cronbach's alpha > 0.7 – adequate reliability
  - Cronbach's alpha > 0.8 – good reliability
  - Cronbach's alpha > 0.9 – excellent reliability
- SAS calculation of Cronbach's alpha for Success Index = 0.456
  - Unreliable instrument
  - Q10 – highest contribution to unreliability
    - Q10 correlation with total Cronbach's alpha = -0.132
    - Removal of Q10 would increase Cronbach's alpha to a value of 0.730
  - Exclude Q10, re-run entire analysis with "Modified Culture Strength Index" – average of Q11-Q13

Source	Characteristic
Serrat (2017)	Q10-Permissions needed from the top to make change
	Q12-Comfort in taking initiative without requiring directives
Andriukaitiene et al. (2018)	Q11-Personal alignment with company's culture
	Q13-Company culture was an asset, not an inhibitor

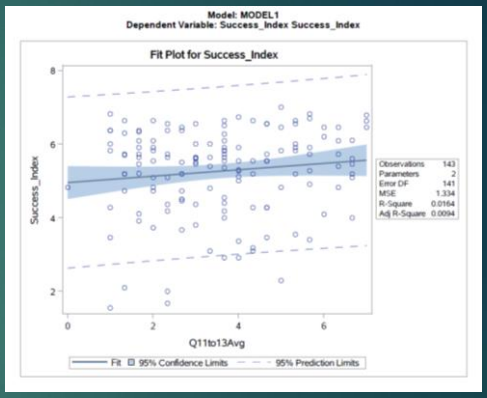
40

Research Analysis, RQ2

41

Plot of Success Index versus Modified Culture Strength Index

- Vast scatter – no pattern, majority not in 95% CL
  - R-square = 0.0164
    - Lower than the Culture Strength Index plot



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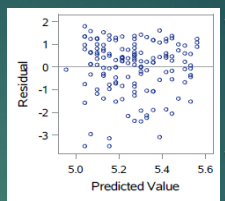
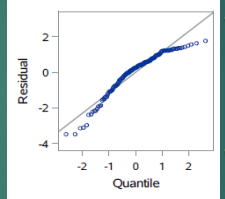
Research Analysis, RQ2

42

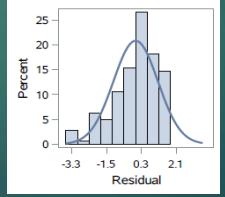
- Criteria for regression analysis (Ott & Longnecker, 2016):
  1. Assumption of linearity, sum of errors is zero in predictive model
  2. Equal variance of errors
  3. Errors independence
  4. Normal distribution of errors
- Test failures
  - Still fails assumption of linearity (#1)
  - Better equal variance of errors, but not very strong (#2)



- Desire even distribution left to right, up and down.
- Fail Test #2 – Better than first run; but still non-equal variance in errors (residuals vs predicted value)



- Desire for plotted points to be as close as possible line
- Observe slightly more drop off at both ends of the plot
- Moderately Pass Test #4 – Data normality



- Is there a bell-curve?
- Moderately Pass Test #4 – Data normality

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Research Analysis, RQ2

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- Running analysis two times: Culture Strength Index (Q10-13) and Modified Culture Strength Index (Q11-Q13) both indicate non-support of H2
  - Fail to reject H2o
  - H2o: There is no significant relationship between the strength of culture at the start of an agile transformation and the amount of success of achieving agile transformation goals.

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Discussion of Findings

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- H1: Supported, as expected.
  - Companies having a culture of low control as well as companies with a culture of high control at the start of their agile transformation achieved a degree of success in their large-scale agile transformation efforts.
  - However, companies having a culture of low control at the start of their agile transformation achieved their outcomes with *greater success (M=5.78)* than companies having a culture of high control (M=5.18) by Wilcoxon rank sum test (p-value 0.006, Z-score 2.75).
  - Offers support to the assertion by Aghina et al. (2020) in that an overall enterprise's gains in agility relates to the starting line for agility
    - Especially since it is a challenge for organizational culture to change (Schein, 1986).

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Discussion of Findings

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- H2: Not supported; not as expected.
  - No significant relationship found in the strength of a culture at the start of a large-scale agile transformation and the amount of success in achieving agile transformation goals.
  - Suspected there are compounding issues with this portion of the study:
    - Culture Index (4 questions) with Cronbach's alpha 0.432 followed by the Modified Culture Index (3 questions) with Cronbach's alpha 0.730
      - Continuous variables could be created from averaging Likert scale at least four questions (Boone & Boone, 2012)
    - Further research still not finding validated instruments to measure culture strength
      - More important to look at the relationship between strength of culture and how well it aligns with market-specific or environment-specific conditions (Abu-Jarad et al., 2010; Dale Carnegie Research Institute, 2017) or company strategy (Tararukhina, 2019)

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Recommendations for Future Research

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Agile success is complex – multitude of factors impacting entire organization (Dikert et. al, 2016; Ebert & Paasivaara, 2017)

- Investigate and validate instrument for culture strength, considering other compounding factors, such as culture-environment fit and/or culture-strategy fit
- Leadership's role in large-scale agile transformation success
  - It's the leader's job to build and run an agile ecosystem (Rigby, Elk, & Berez, 2020)
  - Leaders are responsible for an organization's culture in an agile transformation (Holbeche et al., 2019)
  - Leadership and culture formation are two sides of the same coin (Schein & Schein, 2017)
- Dive deeper into department-level (local) success versus organization-wide success
  - Explanatory Mixed-Methods (quantitative first, then qualitative to explain results)
- Expansion of population
  - Limitations of study: For-profit, US-Only, Large-Scale
  - Convenience sampling via snow-ball technique – potential bias along with smaller sample size (n=143)

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Implications for Practice

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- With change initiatives having low success rates (de Waal, 2018), and a large-scale agile transformation is a lengthy change initiative (Kalenda et al., 2018), understanding aspects of culture could help increase success for large-scale agile transformations
  - Both cultures coded as low control and high control at the start of an agile transformation did show success
    - High control corporate culture most prevalent in the world (Charron, 2011)
    - There is hope for high control cultures for success!
  - A greater understanding of the impact of culture, especially at the start of an agile transformation, and large-scale agile transformation success can help leaders and others starting make more informed choices on actions
    - For example, do these organizations start with addressing culture first versus focus on process and procedure?
    - Greater awareness of leadership action towards stated goals via demonstrating espoused values

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Thank you

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