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**BEST BUSINESS PRACTICES FOR ACHIEVING
WORLD-CLASS STATUS.**

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Objective

- To fill existing gaps in the business literature by providing an analysis of the relationship between objective actions that are commonly associated with best business practices and the business establishments' self-assessment of their practices
 - In other words, if a business establishment states that they are world-class in a specific business practice are they correct?

Introduction

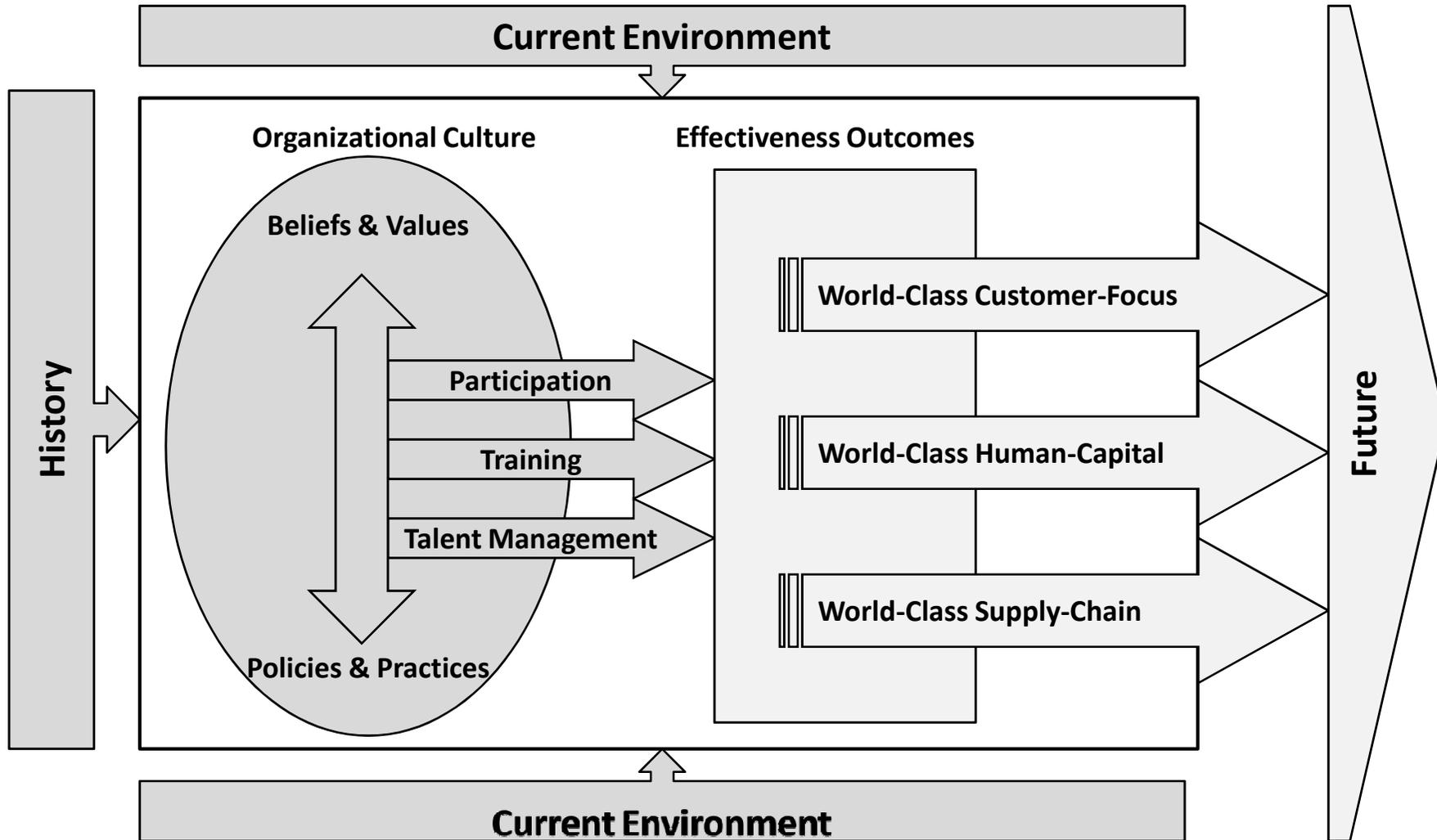
- Intense global competition & rapid changes in technology have enticed many manufacturers into adopting business practices that are said to help them achieve world-class status.
- The twin forces of globalization & technology continue to transform the world of work & as organizations become more virtual than physical, workers become more closely linked to customers across a country than to co-workers across a hall while products' shelf-lives become ever-shorter (Schwandt & Marquardt, 2000).

Introduction(Cont'd)

- Innovations in manufacturing will continue to pour forth. Amid all of this commotion firms need a guiding path that will move them forward confidently; step by step.
- Business success follows when:
 - 1) customers are well served
 - 2) employees are fully involved
 - 3) actions are based on systematic data about processes, customers, competitors, and best practices.

(Schonberger, 1996)

Figure 4: The Interactions Between Organizational Culture Variables & World-Class Status Variables



(Developed & Modified by the Researcher Based on Denison (1990)).

Research Question

- The primary research question in this study explores the association between objective actions that are commonly associated with best business practices and the business establishments' self-assessment of their practices.

The research question (RQ) addressed in Essay 2 is:
Do management practices foreshadow world-class status?

Table VIII: Definitions Of Variables & Ordinal Scales

World-Class Dependent Variables	World-Class Customer-Focused	Ordered dependent variable, defined as the self reported image by an SME as world-class status in customer-focused innovation, measured by the rate of organizational progress toward becoming a world-class player in developing, making, and marketing new products and services that meet customers' needs at a pace faster than the competition, and is scaled on a five level ordinal scale: level one being no progress, level two being 2, level three being 3, level four being 4, and level five being world-class.
	World-Class Human-Capital	Ordered dependent variable, defined as the self reported image by an SME as world-class status in engaged people, human-capital acquisition, development and retention, measured by the rate of organizational progress toward becoming a world-class player in securing a competitive performance advantage by having superior systems in place to recruit, hire, develop, and retain talent, and is scaled on a five level ordinal scale: level one being no progress, level two being 2, level three being 3, level four being 4, and level five being world-class.
	World-Class Supply-Chain	Ordered dependent variable, defined as the self reported image by an SME as world-class status in supply-chain management and collaboration, measured by the rate of organizational progress toward becoming a world-class player in developing and managing supply chains and partnerships that provide flexibility, response time, and delivery performance that exceeds the competition, and is scaled on a five level ordinal scale: level one being no progress, level two being 2, level three being 3, level four being 4, and level five being world-class.

Table VIII: Definitions Of Variables & Ordinal Scales (Cont'd)

Organizational Culture Independent Variables	Participation	Independent variable, defined as the percentage of employees regularly participating in empowered work teams (i.e., make decisions without supervisor approval), and is scaled on a five level ordinal scale: level one being <25%, level two 25-50%, level three 51-75%, level four 76-90%, and level five >90%.
	Training	Independent variable, defined as the number of training hours devoted annually to each employee, and is scaled on a four level ordinal scale: level one being ≤8 hours, level two 9-20, level three 21-40, and level four >40 hours.
	Talent Management	Independent variable, defined as the percentage of employees dedicated to assessing and upgrading the organization's talent pool, and is scaled on a four level ordinal scale: level one being <1%, level two 1-5%, level three 6-10%, and level four >10%.

Table VIII: Definitions Of Variables & Ordinal Scales (Cont'd)

Control Variables	log(SIZE)	Control variable, defined as the log of the number of full time employees.
	log(AGE)	Control variable, defined as the log of the number of years the organization has been in operation.
	GREEN	Control variable, defined as the percentage of workforce dedicated to reducing energy, or emissions in operations.
	NAICS	Control variable, defined as the North American Industry Classification System (NAICS).
	GLOBAL	Control variable, measured by the rate of organization's progress toward becoming a world-class global player.

Table IX: Hypotheses Sets For The Independent Variable Participation

RH 1	H ₀	The percentage of production employees participating in empowered or self-directed work teams has no effect on the rate of organizational progress toward world-class customer-focused innovation of an SME.
	H ₁	The percentage of production employees participating in empowered or self-directed work teams does affect the rate of organizational progress toward world-class customer-focused innovation of an SME.
RH 2	H ₀	The percentage of production employees participating in empowered or self-directed work teams has no effect on the rate of organizational progress toward world-class human-capital acquisition, development and retention of an SME.
	H ₁	The percentage of production employees participating in empowered or self-directed work teams does affect the rate of organizational progress toward world-class human-capital acquisition, development and retention of an SME.
RH 3	H ₀	The percentage of production employees participating in empowered or self-directed work teams has no effect on the rate of organizational progress toward world-class supply-chain management and collaboration of an SME.
	H ₁	The percentage of production employees participating in empowered or self-directed work teams does affect the rate of organizational progress toward world-class supply-chain management and collaboration of an SME.

Table X: Hypotheses Sets For The Independent Variable Training

RH 4	H ₀	The number of training hours devoted annually to each employee has no effect on the rate of organizational progress toward world-class customer-focused innovation of an SME.
	H ₁	The number of training hours devoted annually to each employee does affect the rate of organizational progress toward world-class customer-focused innovation of an SME.
RH 5	H ₀	The number of training hours devoted annually to each employee has no effect on the rate of organizational progress toward world-class human-capital acquisition, development and retention of an SME.
	H ₁	The number of training hours devoted annually to each employee does affect the rate of organizational progress toward world-class human-capital acquisition, development and retention of an SME.
RH 6	H ₀	The number of training hours devoted annually to each employee has no effect on the rate of organizational progress toward world-class supply-chain management and collaboration of an SME.
	H ₁	The number of training hours devoted annually to each employee does affect the rate of organizational progress toward world-class supply-chain management and collaboration of an SME.

Table XI: Hypotheses Sets For The Independent Variable Talent Management

RH 7	H ₀	The percentage of employees dedicated to assessing and upgrading the organizational talent pool has no effect on the rate of organizational progress toward world-class customer-focused innovation of an SME.
	H ₁	The percentage of employees dedicated to assessing and upgrading the organizational talent pool does affect the rate of organizational progress toward world-class customer-focused innovation of an SME.
RH 8	H ₀	The percentage of employees dedicated to assessing and upgrading the organizational talent pool has no effect on the rate of organizational progress toward world-class human-capital acquisition, development and retention of an SME.
	H ₁	The percentage of employees dedicated to assessing and upgrading the organizational talent pool does affect the rate of organizational progress toward world-class human-capital acquisition, development and retention of an SME.
RH 9	H ₀	The percentage of employees dedicated to assessing and upgrading the organizational talent pool has no effect on the rate of organizational progress toward world-class supply-chain management and collaboration of an SME.
	H ₁	The percentage of employees dedicated to assessing and upgrading the organizational talent pool does affect the rate of organizational progress toward world-class supply-chain management and collaboration of an SME.

Research Models

Model 1:

$$\begin{aligned} \text{WORLDCLASScustomerfocused}_i = f(\alpha + \beta_1 \text{PARTICIPATION}_i + \beta_2 \text{TRAINING}_i \\ + \beta_3 \text{TALENTMGMT}_i + \beta_4 \log(\text{SIZE}_i) + \beta_5 \log(\text{AGE}_i) + \beta_6 \text{GREEN}_i + \beta_7 \text{NAICS}_i + \beta_8 \text{GLOBAL}_i + \varepsilon_i) \end{aligned}$$

Model 2:

$$\begin{aligned} \text{WORLDCLASShumancapital}_i = f(\alpha + \beta_1 \text{PARTICIPATION}_i + \beta_2 \text{TRAINING}_i + \\ \beta_3 \text{TALENTMGMT}_i + \beta_4 \log(\text{SIZE}_i) + \beta_5 \log(\text{AGE}_i) + \beta_6 \text{GREEN}_i + \beta_7 \text{NAICS}_i + \beta_8 \text{GLOBAL}_i + \varepsilon_i) \end{aligned}$$

Model 3:

$$\begin{aligned} \text{WORLDCLASSsupplychain}_i = f(\alpha + \beta_1 \text{PARTICIPATION}_i + \beta_2 \text{TRAINING}_i \\ + \beta_3 \text{TALENTMGMT}_i + \beta_4 \log(\text{SIZE}_i) + \beta_5 \log(\text{AGE}_i) + \beta_6 \text{GREEN}_i + \beta_7 \text{NAICS}_i + \beta_8 \text{GLOBAL}_i + \varepsilon_i) \end{aligned}$$

Where: $f()$ is used to signify the proportional odds logistic regression function

Table XII: Descriptive Statistics

Dependent Variables	Rate of organization's progress toward world-class customer-focused innovation			Rate of organization's progress toward world-class human-capital acquisition, development and retention			Rate of organization's progress toward world-class supply-chain management and collaboration		
	Scale	Number of Establishments	Percentage of Establishments	Scale	Number of Establishments	Percentage of Establishments	Scale	Number of Establishments	Percentage of Establishments
	1=No progress	18	4%	1=No progress	40	8%	1=No progress	44	9%
	2	83	17%	2	114	23%	2	126	26%
	3	181	37%	3	198	41%	3	196	40%
	4	161	33%	4	111	23%	4	106	22%
	5=World-class	46	9%	5=World-class	24	5%	5=World-class	13	3%
		489	100%		487	100%		485	100%
Independent Variables	Percentage of employees regularly participating in empowered work teams (i.e., make decisions without supervisor approval)			Number of training hours devoted annually to each employee			Percentage of employees dedicated to assessing and upgrading the organization's talent pool		
	Scale	Number of Establishments	Percentage of Establishments	Scale	Number of Establishments	Percentage of Establishments	Scale	Number of Establishments	Percentage of Establishments
	<25%	194	40%	≤8	141	29%	<1%	133	27%
	25-50%	148	30%	9-20	215	44%	1-5%	240	49%
	51-75%	72	15%	21-40	85	17%	6-10%	74	15%
	76-90%	50	10%	>40	48	10%	>10%	43	9%
	>90%	26	5%						
		490	100%		489	100%		490	100%

Table XIII: Estimation Results For The Model That Uses 4-Digit NAICS Fixed-Effects For Small & Mid-Sized Business Establishments

Variable Name	Model 1 Dependent Variable (World-Class Customer-Focus)		Model 2 Dependent Variable (World-Class Human-Capital)		Model 3 Dependent Variable (World-Class Supply-Chain)	
	Value	EXP(Coef)	Value	EXP(Coef)	Value	EXP(Coef)
	Std. Error	t value	Std. Error	t value	Std. Error	t value
PARTICIPATION2	0.54	1.71	0.37	1.44	0.01	1.01
	0.26	2.04**	0.26	1.41*	0.28	0.04
PARTICIPATION3	1.02	2.76	1.06	2.90	-0.39	0.68
	0.34	2.99***	0.33	3.23***	0.34	-1.12
PARTICIPATION4	1.02	2.78	1.61	4.98	-0.08	0.92
	0.35	2.91***	0.36	4.43***	0.38	-0.22
TRAINING2	0.73	2.07	0.80	2.22	-0.05	0.95
	0.27	2.68***	0.27	2.96***	0.28	-0.18
TRAINING3	0.09	1.09	0.42	1.53	-0.46	0.63
	0.30	0.29	0.30	1.42*	0.31	-1.48
TALENTMGMT2	0.31	1.36	0.31	1.37	0.10	1.10
	0.26	1.17	0.26	1.20	0.27	0.36
TALENTMGMT3	0.69	1.99	0.77	2.15	0.37	1.45
	0.31	2.20**	0.31	2.46***	0.32	1.15

*significant at the .10 confidence level **significant at the 0.05 confidence level ***significant at the 0.01 confidence level. N=492

Table XIV: Summary of the Proportional Odds Logistic Regressions Results

		p-value		
		Model 1	Model 2	Model 3
		Dependent Variable		
		World-Class customer-focus	World-Class human-capital	World-Class supply-chain
Independent Variable	PARTICIPATION	0.0037***	1.5e-05***	0.6661
	TRAINING	0.0069***	0.0110**	0.2257
	TALENTMGMT	0.0862*	0.0447**	0.4800
Proportional Odds Test " <i>Pchisq</i> "		0.9174	0.9389	0.7337
Pseudo R^2		0.1883	0.2553	0.2304
AIC		1148	1265	1111
Df		105	106	112

*significant at the 0.10 confidence level **significant at the 0.05 confidence level ***significant at the 0.01 confidence level. N=492

Findings

- Models restricted to SME size & 4-digit NAICS fixed effects have superior results than other models (consistent with chapter 1)
- The results show that the percentage of employees regularly participating in empowered work teams is positively associated with an establishment's self-assessment as world-class customer-focus & world-class human-capital at the 1% critical level.

Findings (Cont'd)

- The average number of training hours devoted annually to each employee is positively associated with an establishment's self-assessment of world-class customer-focus at the 1% critical level, and with world-class human-capital at the 5% critical level.
- The percentage of employees dedicated to assessing and upgrading the organization's talent pool is positively associated with an establishment's self-assessment as world-class human-capital at the 5% critical level.

Conclusions

- The association of the objective aspects of organizational culture is strongest between employee training and employee participation in empowered or self-directed work teams and between an establishment's self-assessment of world-class customer-focus, and world-class human-capital.
- The consistency of the results is evident when the statistical models tested were tested with different NAICS code fixed effects using three-digit, four-digit & five-digit NAICS, & SME size fixed effects.
- This research highlights the importance of the objective actions that are commonly associated with best business practices and the business establishments' self-assessment of their practices.
Therefore, if business establishments state that they are world-class in a specific business practice then they are correct.