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**The Impact of Supply Chain Innovation on Total Quality Management
The Intermediate Variable through Information Quality: An Empirical
Study at Aqaba Special Economic Zone**

Mohammad Abdelraheem Al-Mahasneh

Abstract

The current study aims at measuring the effect of supply chain innovation on total quality management at Aqaba Special Economic Zone in Jordan using information quality as intermediate variable.

The study population includes all the Aqaba Special Economic Zone employees. However The sample of the study resembles exactly the total number of the study population equivalent to (204) staff members of Aqaba Special Economic zone.. A well-developed questionnaire including 44 questions was developed to achieve the study objectives. Statistical testes such as means, standard deviations and multiple regressions were used in the current study.

The study results indicate that there is a significant impact of supply chain innovation on total quality management at Aqaba Special Economic Zone. In addition, the results indicate that there is significant effect of supply chain innovation constructs (process improvement and information systems) in total quality management through the intermediate variable quality of the information at Aqaba Special Economic Zone.

The study recommended drawing the attention of Aqaba Special Economic Zone management toward their linking information systems with business partners, and guiding the attention of researchers to conduct more studies on the impact of the maturation of smooth supply in institutional performance.

Keywords: supply chain, supply chain innovation, total quality management, information quality, Aqaba Special Economic Zone

.(Schneller and Smeltzer, 2006;White and Mohdzain, 2009)

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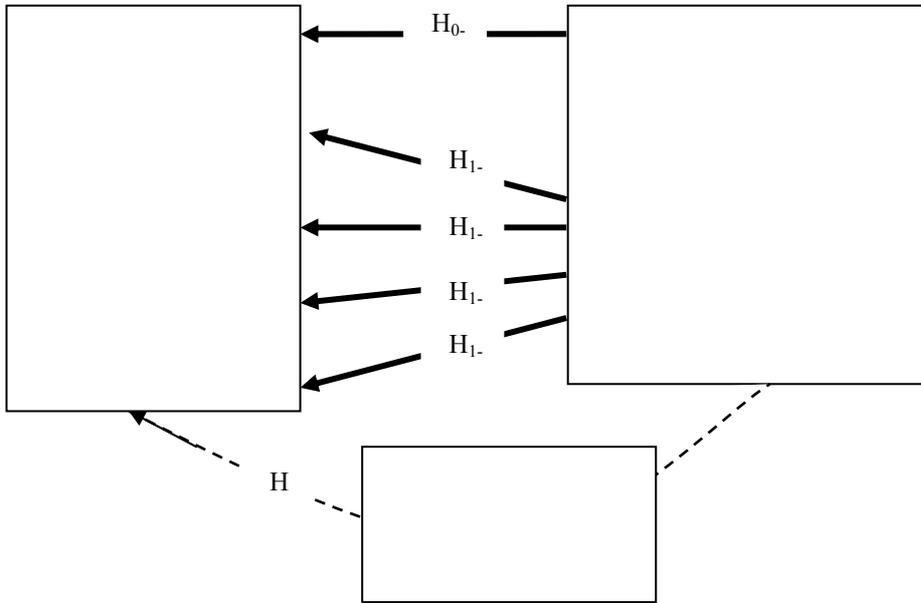
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Supply Chain Innovation in French " Companies: An Empirical Analysis" (2012) Ageron et al.

An instrument for measuring supply chain flexibility for the textile and clothing companies " (2012) Karen et al.

Role of Innovative Supply Chain Practices and Total Quality Management (TQM) on Performance of Indian Cement Manufacturing Firms-AN Empirical Study " (2011) Dubey and Chakrabarty

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0.908	15		1
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0.850	8		2 1
0.925	21		2
0.719	5		1 2
0.840	6		2 2
0.809	5		3 2
0.872	5		4 2
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	Sig. *	K - S		
	0.161	1.122		1
	0.076	1.502		1 - 1
	0.209	1.062		2 - 1
	0.351	0.932		2
	0.075	1.465		1 - 2
	0.142	1.149		2 - 2
	0.105	1.565		2 - 2
	0.092	1.522		4 - 2
	0.122	1.829		3

($\alpha > 0.05$)

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	1	3.217		1
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	2	3.091		1
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Multicollinearity

Tolerance (VIF) Variance Inflation Factor
(8) .(0.05) Tolerance .(10)

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Tolerance	VIF		
0.772	5.773		1
0.836	2.278		2

Multicollinearity

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 2.278) () (VIF) (5.773
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 R (0.545) R² (0.738)
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	(0.527)		(.0.268)
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			.($\alpha \leq 0.05$)
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Sig*	T	β		Sig*	DF		F	(R ²)	(R)
0.004	2.396	0.268		0.000	2		41.871	0.545	0.738
0.000	4.710	0.527			70				
					72				

($\alpha \leq 0.05$)

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Change Statistics					F	(R ²)	(R)		
Sig*F Change	DF2	DF1	F	(R ²)					
0.000	71	1	73.123	0.500	117.984	0.507	0.712		
0.019	70	1	5.738	0.532	67.490	0.545	0.738	+	

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($\alpha \leq 0.05$) (0.712) : R (

.($\alpha \leq 0.05$) (0.738)

(0.545) ($\alpha \leq 0.05$) (0.507) R²

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Sig*	T	β		Sig*	DF		F	(R ²)	(R)	
0.012	2.590	0.324		0.000	2		26.452	0.430	0.656	
0.003	3.107	0.389			70					
					72					

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(0.656) R

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Change Statistics					F	(R ²)	(R)		
Sig* F Change	DF2	DF1	F	(R ²)					
0.000	71	1	42.759	0.376	42.759	0.376	0.6130		
0.000	70	1	6.706	0.055	26.452	0.430	0.656	+	

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α) (0.613) : R
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 (0.376) R² Change
 .(α ≤ 0.05) (0.055) (α ≤ 0.05)
 (42.759) F
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Sig*	T	β		Sig*	DF		F	(R ²)	(R)
0.138	1.502	0.182		0.000	2		30.177	0.463	0.680
0.000	4.456	0.541			70				
					72				

($\alpha \leq 0.05$)

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($\alpha \leq 0.05$)

(0.680) R

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Change Statistics					F	(R ²)	(R)		
Sig* F Change	DF2	DF1	F	(R ²)					
0.000	71	1	57.087	0.446	57.087	0.446	0.668		

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(0.668) : R
 (0.446) R² .(α ≤ 0.05)
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 (57.087) F (α ≤ 0.05)
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Sig*	T	β		Sig*	DF		F	(R ²)	(R)	
0.016	2.470	0.338		0.000	2		16.384	0.319	0.565	
0.048	2.013	0.275			70					
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($\alpha \leq 0.05$)

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(0.565) R

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Change Statistics					F	(R ²)	(R)		
Sig* F Change	DF2	DF1	F	(R ²)					
0.000	71	1	22.534	0.269	27.534	0.279	0.529		
0.048	70	1	4.052	0.239	6.384	0.319	0.565	+	

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(0.269) R² Change

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Sig*	T	β		Sig*	DF	F	(R ²)	(R)	
0.453	0.755	0.099		0.000	2	21.392	0.379	0.616	
0.000	4.162	0.543			70				
					72				

($\alpha \leq 0.05$)

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.($\alpha \leq 0.05$) (0.616) R

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Stepwise

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Change Statistics					F	(R ²)	(R)		
Sig* F Change	DF2	DF1	F	(R ²)					
0.000	71	1	42.471	0.371	42.471	0.371	0.612		

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R^2 $(\alpha \leq 0.05)$ (0.612) :
 $(\alpha \leq 0.05)$ (0.371)
 $(\alpha \leq 0.05)$ $(0.371) R^2$ Change
 $(\alpha \leq 0.05)$ (42.471) F
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 $(\alpha \leq 0.05)$
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Sig* مستوى الدلالة	T	المسار	Indirect Effect قيم معاملات التأثير غير المباشر	Direct Effect قيم معاملات التأثير المباشر	Sig* مستوى الدلالة	RMSEA	CFI	GF	Chi ² المستوية	النجان
0.00	12.897	SCI ↓ TQM		0.692						إبداع سلسلة التوريد في إدارة الجودة الشاملة من خلل جودة المعلومات
0.00	23.553	SCI ↓ IQ	0.392	0.671	0.025	0.021	0.993	0.995	5.653	إبداع سلسلة التوريد في إدارة الجودة الشاملة من خلل جودة المعلومات

GFI : Goodness of Fit Index; must Proximity to one
 FI : Comparative Fit Index; must Proximity to one
 RMSEA : Root Mean Square Error of Approximation
 SCI : Supply Chain Innovation
 IQ : Information Quality
 TQM : Total Quality Management

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Path Analysis

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(5.653) chi^2
 Goodness of Fit Index (GFI) (0.995) $(0.05 \geq \alpha)$

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Comparative Fit Index (0.993)

Root Mean Square Error of Approximation
(0.021) (RSMEA)

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