

جامعة فيلادلفيا
كلية العلوم الإدارية والمالية

المؤتمر العلمي الرابع

الريادة والإبداع

إستراتيجيات الأعمال في مواجهة تحديات العولمة

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Abstract

Determination of Technological Advantage in Industrial Organizations
(Practical Model For Measuring of Technical Innovation)
Prof.Dr. Ghassan Kasim Dawood Al-Lami

This research aims to deal with knowledge methodology to build a model for determination of technological advantage for machines and production equipments in industrial organizations to diagnose and evaluate of their existing technologies paths depend on practical indicators for their operations performance .

We apply a model concepts on hypothetical case to two similar companies in their production nature and technological paths . The outcomes showed proofs of the correct model in modernization and technological change

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(Krajewski & Ritzman , 2002)

. (Slack , et.al,2004) (Heizer & render , 2001)

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1-2

Stonebraker &)

. (Heizer & Render , 2001 ,280) (Leong ,1994 ,482

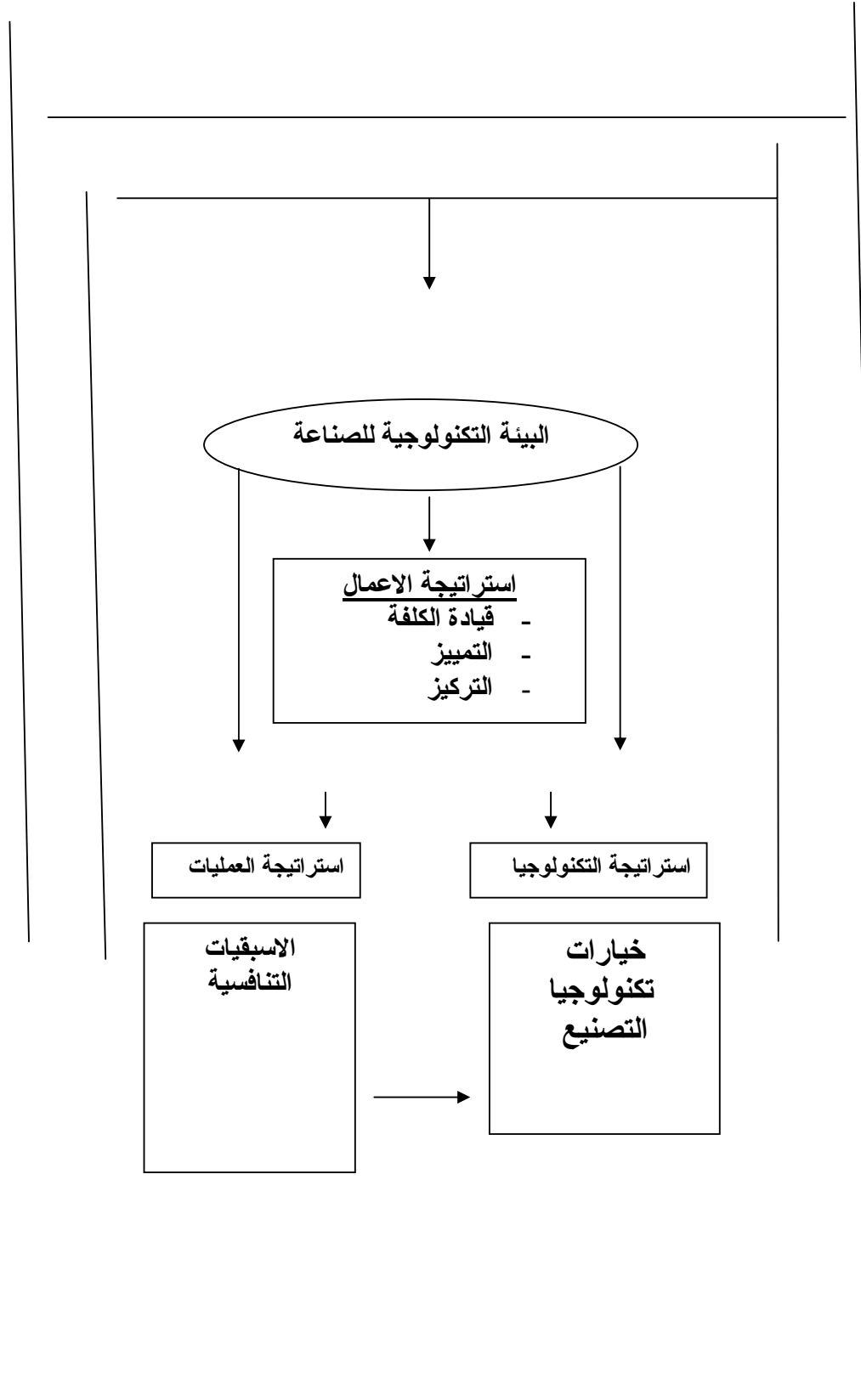
(Design Decision)

Operating)

(Decisions

(23-22, 1999 ,)

(1)



(1)

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(أ)

(ب)

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2-2

Krajewski & Ritzman, 2002 ,37-)

Slack,2004,44)(41

: Quality (أ)

: Delivery (ب)

: Flexibility (ج)

Cost (د)

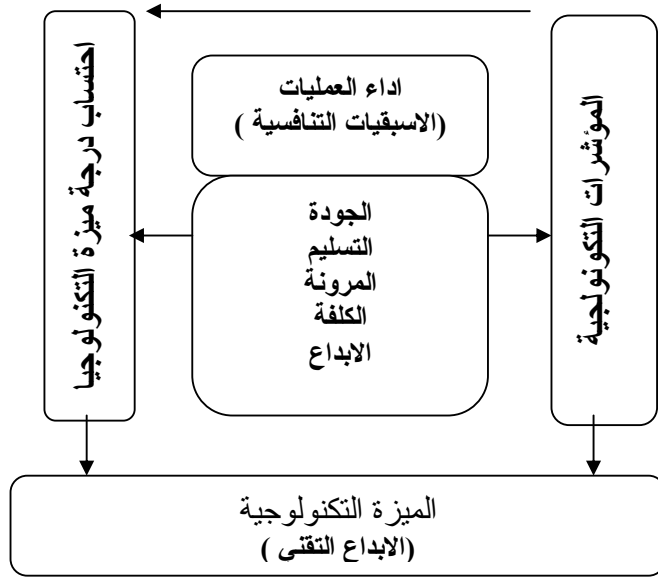
(Roth ,1996,24).

: Innovation (هـ)

(Licker ,1997,461)

Technology Advantage

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(2)

(2)

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1-3

:

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(أ)

: (ب

(Slack , 2004,

643)

(Upton , 1995 , 76)

(ج

: (د

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: (و

(1)

(1)

	/	%	-
,	/	%	-
	/	%	-
	X		-
			-
	/	%	-

(%100) (1) ()

(5-1)

Technology Advantage Score

2-3

(*) =

Technology Advantage Index

3-3

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(B) (A)

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(2)

6		5		4		3		2		1		()
B	A	B	A	B	A	B	A	B	A	B	A	
65	48	70	61	72	59	75	64	87	75	96	94	(%)
70	42	72	53	80	54	90	75	92	78	94	89	(%)
18	22	19	13	20	12	18	10	17	10	12	7	(%)
30	56	27	39	22	35	15	27	14	21	12	17	()
3	2	3	2	3	2	3	1	2	1	2	1	
2	0.4	3	0.6	3	1	4	1	5	2	5	2	(%)

(5-1) ()

(3)

(3)

1	52-41	%	
2	64-53		
3	76-65		
4	88-77		
5	100-89		
1	50-40	%	
2	61-51		
3	72-62		
4	83-73		
5	94-84		
1	9-4	%	
2	15-10		
3	21-16		
4	27-22		
5	33-28		
5	20-10		()
4	30-21		
3	40-31		
2	50-41		
1	60-51		
1	1		
2	2		
3	3		
4	4		
5	5		
	% 1	%	
1	1		
2	2		
3	3		
4	4		
5	5		

(3)

(4)

(4)

6		5		4		3		2		1			
B	A	B	A	B	A	B	A	B	A	B	A		
3	1	3	2	3	2	3	2	4	3	5	5		
3	4	3	2	3	2	3	2	3	2	2	1		
3	2.5	3	2	3	2	3	2	3.5	2.5	3.5	3		
3	1	3	2	3	2	3	2	4	3	5	5		
4	1	4	3	4	3	5	4	5	4	5	5		
3.5	1	3.5	2.5	3.5	2.5	4	3	4.5	3.5	5	5		
3	1	3	2	4	2	5	4	5	4	5	5		
4	1	4	3	4	3	5	4	5	4	5	5		
3.5	1	3.5	2.5	4	2.5	5	4	5	4	5	5		
3	1	3	2	4	2	5	4	5	4	5	5		
3	4	3	2	3	2	3	2	3	2	2	1		
3	2.5	3	2	3.5	2	4	3	4	3	3.5	3		
3	2	3	2	3	2	3	1	2	1	2	1		
2	-	3	-	3	1	4	1	5	2	5	2		
2.5	1	3	1	3	1.5	3.5	1	3.5	1.5	3.5	1.5		

(4)

: (B) (A)

(5)

(**) %		(*)		
(B)	(A)	(B)	(A)	
100	100	4.1	3.5	1
100	82.9	4.1	2.9	2
95.1	74.3	3.9	2.6	3
82.9	60	3.4	2.1	4
78	57.1	3.2	2.0	5
75.6	45.7	3.1	1.6	6

(%20 X) = (*)

100 X = (**)
(%)

() : (5)

-1

(B)

(A)

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(B)

-2

(A)

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(1)

(2)

(3)

(1)

(2)

(3)

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