

*The Impact of Applying Artificial and Emotional  
Intelligence on the Quality of Decision-Making*

:

20060241

**2009/ 2008**

## تفويض

.

:

:

21-2- 2009 :

## قرار لجنة المناقشة

نوقشت هذه الرسالة بعنوان (أثر تطبيق الذكاء الاصطناعي والذكاء العاطفي على جودة اتخاذ القرارات)

وأجيزت بتاريخ ٢٠٠٩ / ٣ / ٢١ م.

### أعضاء لجنة المناقشة

١- أ.د. محمد عبد العال النعيمي رئيساً و مشرفاً

٢- أ.د. كامل المغربي عضواً

٣- د. صباح حميداني عضواً

٤- د. راتب جليل صويص عضو خارجي - أستاذ مشارك / الجامعة الأردنية

التوقيع

## الشكر و التقدير

الحمد والشكر لله من قبل ومن بعد ،،

"

الباحثة  
فاتن عبد الله صالح

# الإهداء

.....

....."

"

.....

((

))

.....

.....



<b>93</b>	.....	:	
94	.....		1.3
96	.....		2.3
97	.....		3.3
97	.....		4.3
<b>99</b>	.....	:	
102	.....		1.4
107	.....		2.4
<b>121</b>	.....	:	
122	.....	:	
124	.....	:	
126	.....		
126	.....		
133	.....		
135	.....		

95	.....	1
102	.....	2
103	.....	3
104	.....	4
105	.....	5
106	.....	6
108	.....	7
109	.....	8
112		9
	)	
	..... (            -            -	
114	.....	10
115	.....	11
116	.....	12
117		13
	..... Paired Sample Test	
119		14
	..... Paired Sample Test	



## فهرس الأشكال

14	...	1
15		2
	.....	
17		3
	.....	
18		4
	.....	
24	.....	5
29	.....	6
64	.....	7

136 .....

1

Simple Regression

.Paired Sample T-Test ( )

Pearson Correlation

:

-1

R-Square

.% 0.5

-2

. R-Square

% 0.68

" "

-3

" "

-4

" "

-5

-6

-7

Paired Sample T-Test

-8

. 0.004

-9

. 0.034

-10

0.001

. 0.00

.

# ***The Impact of Applying Artificial and Emotional Intelligence on the Quality of Decision-Making***

**Prepared by**

**Fatin Abdullah Ibrahim Saleh**

**Supervised by**

**Prof. Dr. Mohammed Al-No'eimy**

## **Abstract**

This study has examined the impact of applying artificial and emotional intelligence on the quality of decision-making. The principal goal of this study is to recognize the role of artificial and emotional intelligence in undertaking the administrative decisions in the Jordanian commercial banks and their impact on the quality of decision-making. In order to accomplish the aim of this study, the researcher has designed a tool consists of the three following fields: Artificial intelligence, emotional intelligence, and decision-making; and the following statistical methods have been used: Simple Regression, Pearson Correlation, and Paired Sample T-Test.

**The study's results have shown the following:**

- 1- There is a statistically indicating relationship between artificial intelligence methods and the quality of administrative decision-making. This relationship has been interpreted by the value of R-Square which equals 0.5%.
- 2- There is a statistically indicating relationship between emotional intelligence methods and the quality of administrative decision-making. This relationship has been interpreted using R-Square to be about 0.68%.
- 3- The results of Pearson Correlation have shown a "positive" correlation between the academic qualification and the artificial intelligence variable.
- 4- The results have shown a "positive" correlation between experience, academic qualification, and the emotional intelligence variable.
- 5- Additionally, The results have shown a "positive" correlation between academic qualification and administrative decision making.
- 6- The results have shown that there is a statistically indicating relationship between motives, in their capacity as applications of emotional intelligence, and the quality of decision-making.
- 7- There is a statistically indicating relationship between the system capability and the quality of decision-making.

8- By carrying out Paired Sample T-Test, the results have shown a statistically indicating relationship between the type of intelligent program used in the artificial intelligence methods and the quality of decision-making in the level of 0.004.

9- It became clear that there is a statistically indicating relationship between the quality of decision-making and system capability in the level 0.034.

10- Concerning the relationship between the quality of decision-making and the implementation of emotional intelligence methods, the test results have shown a relationship between motives and the quality of decision-making in the level 0.001. As well as, there was a statistically indicating relationship between the controversial perspectives and the quality of decision-making in the level 0.00.

The study recommended developing the workers skills in order to handle the different methods of artificial and emotional intelligence, and working on identifying the scientific and objective basis that should be adopted in decision-making.





: 1.1

(2001 - )

"

"

.(2003 ) .

.(2003 )

- ) .

(2007

- ).

(2007

:

":

.(Negnevitsky, 2004, pp. 27 ). "

( 2006 )

( Mark Focus )

"

":

.

( )

" "

.

.(2003 )

"

)

"

.(2003

(1995)

( Daniel Goleman )

" "

" "

(1995-( Daneil Goldman.

:

( ) -1

.( ) -2

( 2000 ) .( ) -3

) " " (1946) Thorandic

( 17 . 2001. ) . (

" " Gardner H. (1993) (Howard Gardner )

1990 :

" " Salovey and Mayer

:

(2006)

" "

· :

"

: **2.1**

" "

.

:

-1

-2

-3

:

**3.1**

-

:

**4.1**

:

.(0.05 = ∞)



:

.(0.05 = ∞)

:

.(0.05 = ∞)

:

**5.1**

Joseph Schumpeter , John Stuartmill



: **6.1**

:

-1

-2

-3

-4

: **7.1**

Decision

.(2005 ) .

"

(2007 )

Artificial Intelligence

"

.(2007 ) ."

:

"

.(1987 ). "

( 2000 )

Emotional Intelligence

:

**8.1**

:

-1

-2

-3

"

-4

(50)

(50)

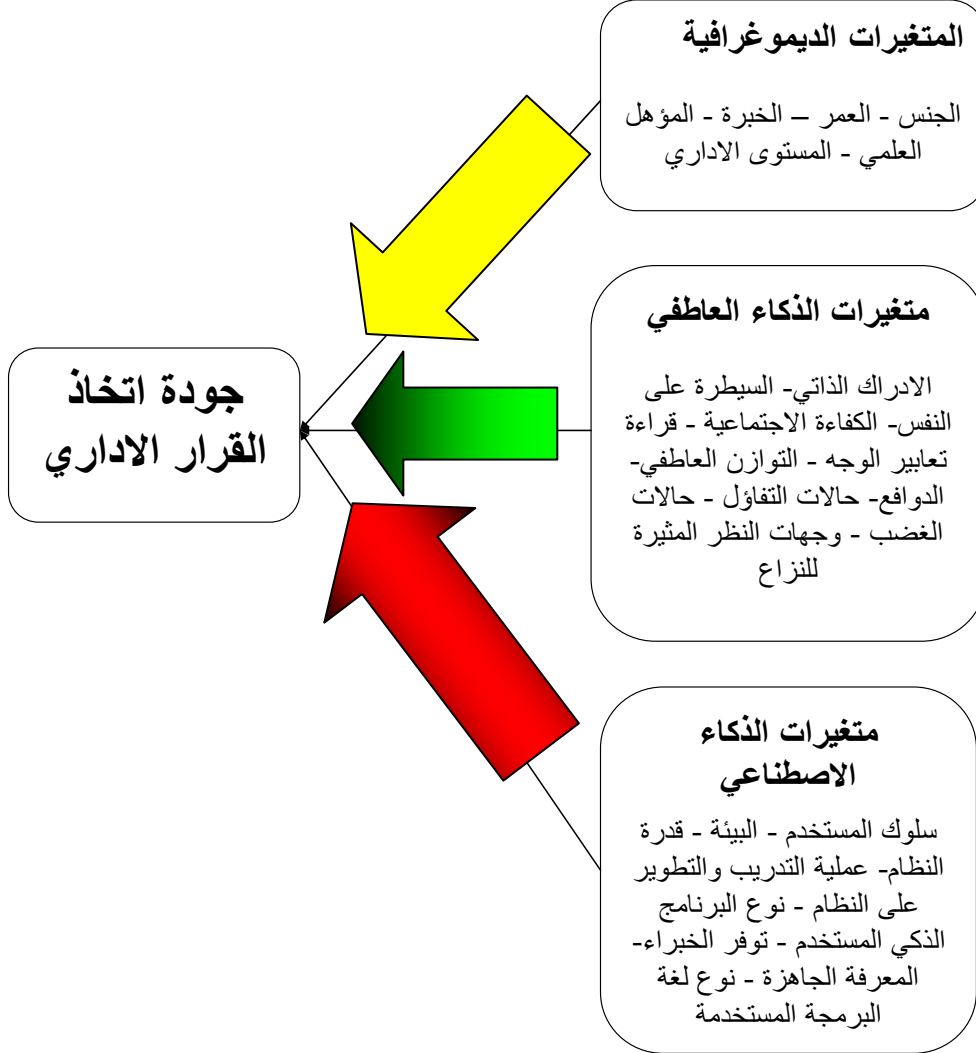
(54)

-5

"

-6

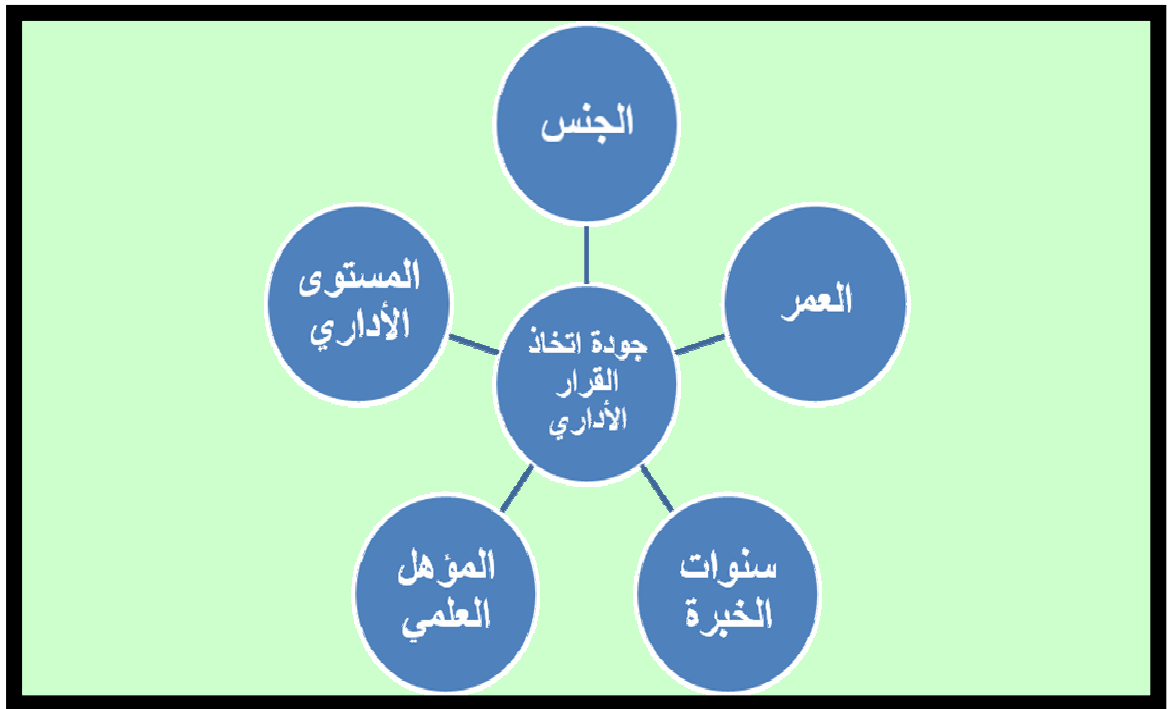
**9.1**



(1) :

:

:  
:  
:  
:



(2)

:

\_\_\_\_\_ :

\_\_\_\_\_ :

(                    )                    :

( 3 )

:





(3)

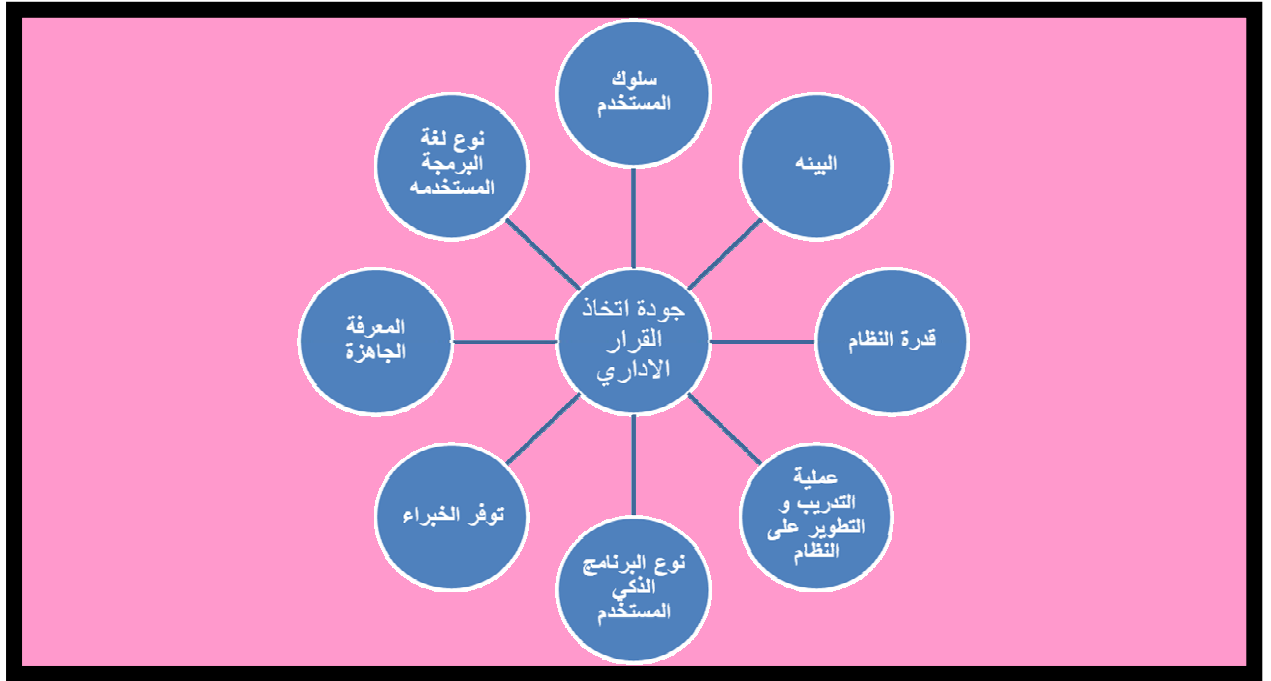
:

:

:

(4)

:



(4)

:



: :

:

:

**1.2**

1964

2004

456 2004

).

(32-30 2006

.

:

: -1

1964

.

.

)

(34-32 2006

: -2

(34-32 2006 )

: -3

1959

1968

1966

1965

1974

). .

(34-32 2006

1997

.( 34-32 2006 ).

" : ( )

:

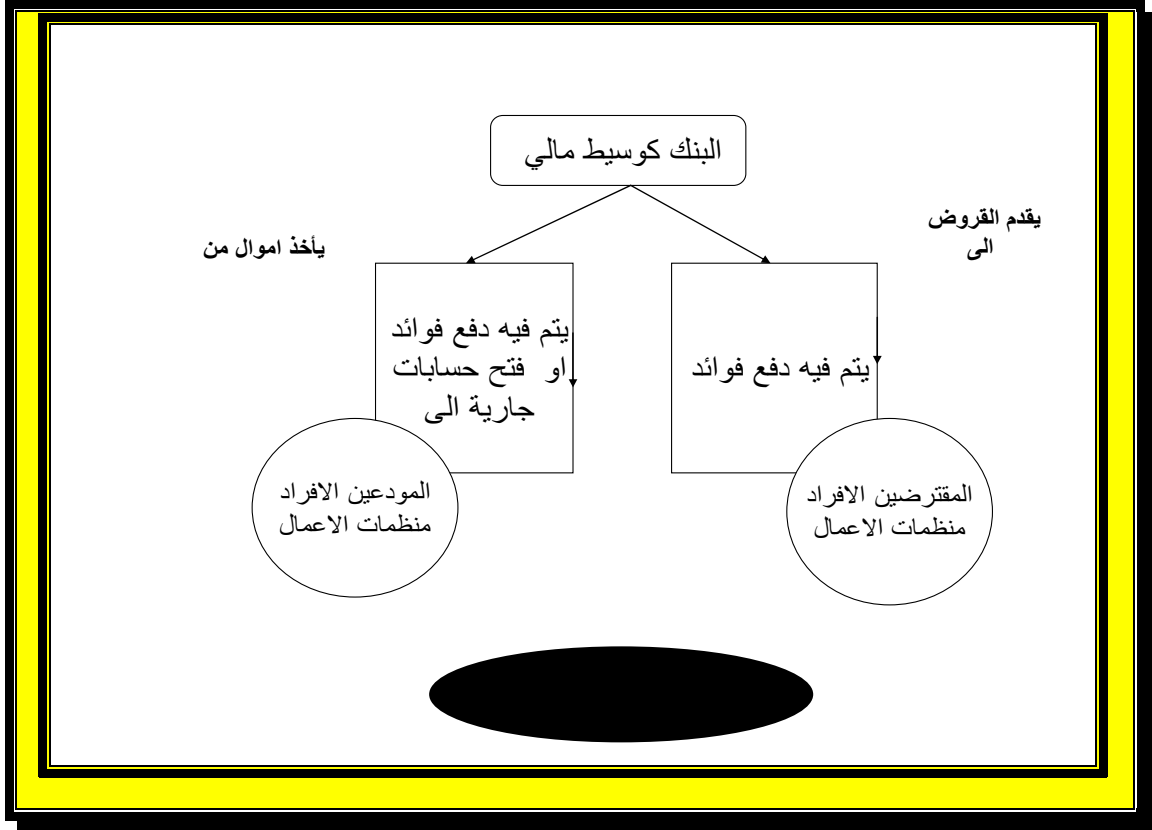
.(13 2006 ) "

" : (2005)

"

( 2005 85 ) .

(5)



85

:

( 1993 146-147 ) :

-1

-2



-3

-4

-5

-6

-7

)"

.(13 2002

)." .

(14 2002

.1999

1997

)." .

.(41 2006

)." .

.(41 2006

( 2006 41 ) .

: **(Modern Functions)**

-1

.Trust Department

-2

-3

(Distribution)

-4

2006 ) .(Supervision and Control)

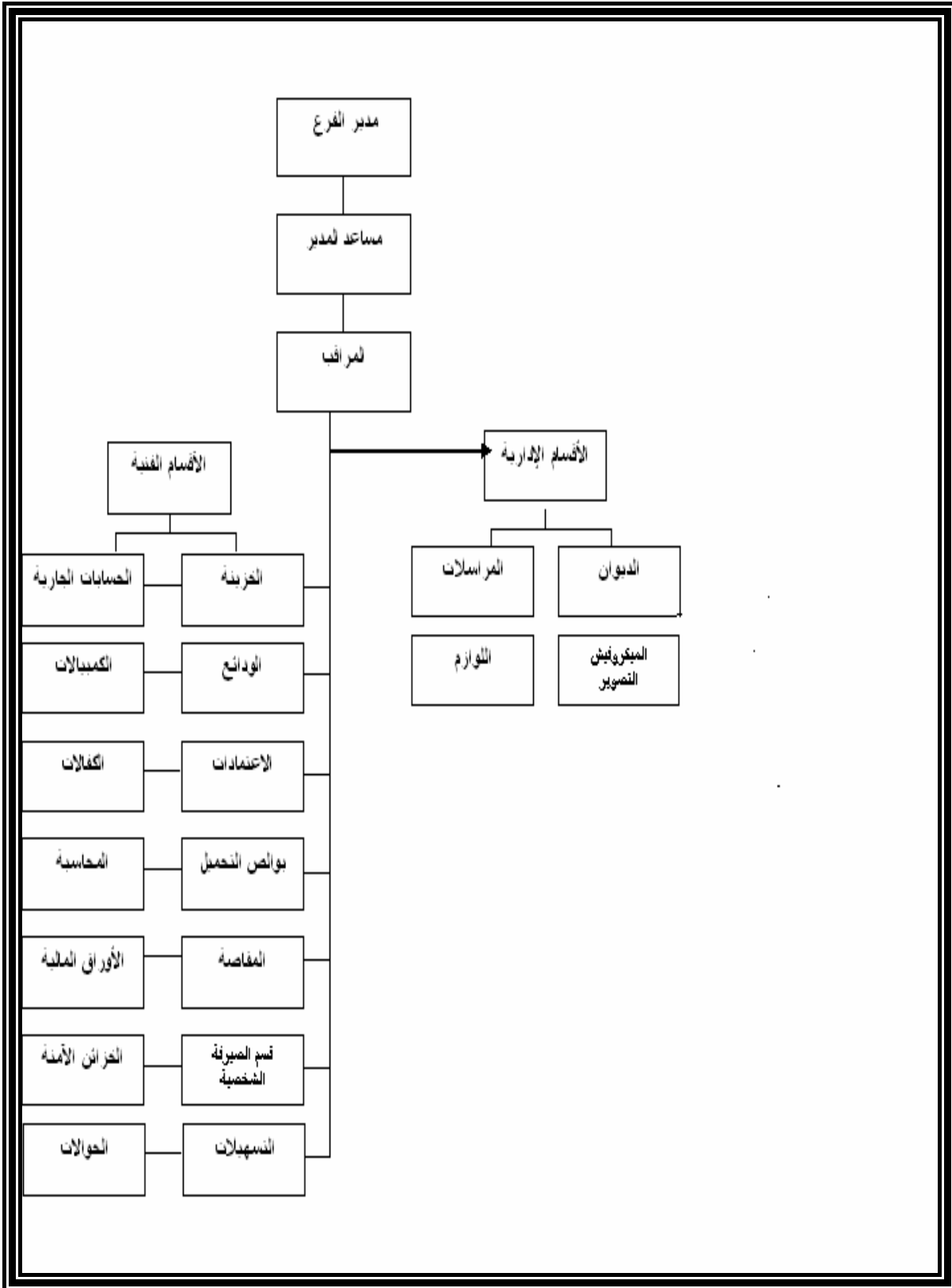
-5

.(42

## Banks Structure

(6)

(2006 ).



(6)

( )

)

: (2006

**:Automatic Teller Machine**

**-1**

:

.

:(NE)

**-2**

(NE)

**:Voice Bank -3**

**Visa Card -4**

**( ) -5**

**Internet -6**

"

(22-15 2001 )

**Artifiacal Intellegence**

**2.2**

**Applications**

:

:

!



.(8 2006 )

:

.(12 2006 )

(Barto

:

.and Sutton, 1983, 834-846)

:

.(Honlland, 1995, p 39)

" (2007)

..

.(9 2007 )

(52 2005 ) .(9 2007 )

":

."

.(14 2006 )

.

:

-1

: -2

.

: -3

). .

: -4

(2007



	:	
	(2006	)
	:	
	Game Playing	-1
Automated Reasoning and Theorem		-2
		.Proving
	Expert Systems	-3
	Natural Language	-4
	Machine Vision	-5
	Modeling Human performance	-6
	Planning and Robotics	-7
Languages and environments for artificial		-8
		Intelligence
	Machine Learning	-9
Parallel Distributed processing		-10
		.and emergent computation
	.Heuristic Classification	-11
	AI and Philosophy	-12

:

: -1

" "

(5,1)

" "

-275 2007 ) .

.( 276

: -2

"

.( 276-275 2007 ) .

: -3

.( 276-275 2007 ) .

:

:

-275 2007 )

.( 276

:

### Artificial Intelligence

" "

.

.

"

(Barto and ."

.Sutton, 1983, 834-846)

Cognitive Science

( )

Pratt, W. (1978), .(Cognitive Simulation)

(Fogel, 1995, p

.120)





.(Holland, 1975, p 66)

Batressia

Carpenter

Fairraven

.(Fogel, 1995, p 39).Beterraven

(Fogel,

.1995, p 39)

Modeling

(Barto and Sutton,

.1983, p 12)

:

-1

-2

-3

-4

-5

-6

-7

-8

-9

-10

-11

( Jean – Louis - 1987 )

-12

( Emotional Intelligence Applications )

**3.2**

(Golman,1967) ( )

-Daneil Golman) .

( 1995

( 2001 ) . ) .

.(42 2000 )."

2000 ) "

.(42

"

"

Salovey

Salovey, Mayer, Caruso, ) .

(2000, p 3

"

).

. ( 181 2006

:

(Salovey, Mayer, "

":

":

.Caruso, 2000, p 3)

.(13 2000 )"

(1930-1920) Thorandic

.(17 2001 ) (Harper's Magazine)

(Wechsler, 1958)

(Non-Intellective Ability)

.(73 2001 )

(Doll, 1953)

(Baron, 1997, p 6) (Vineland Social Maturity)

.

(1973)

:

.(89 2003 )

(Gardner, 1983) ( ) (1983)

(Multiple Intelligence)

(Personal Intelligence)

(Intrapersonal Intelligence)

.(11 2002 ) (Interpersonal Intelligence)

(Greenspan, 1989) .(Emotional Intelligence)

( )

Peageh

)

.(3 1998 ) (

(Perter Salovey) (Jon Mayer, 1990)

)

(



(Salovey,

.Mayer, Caruso, 2000, p, 4)

(Golman, 1995)

(Salovey, Mayer,

.Caruso, 2000, p, 396)

(Baron, 2000)

(Sahpiro, 2001)

.(256 2002 )

:

(Emotional Intelligence)

( )

(Salovey, Mayer, .

Caruso, 1999, p 267)

" : (Gloman, 1999, p 1-2)

"

.(Salovey, Mayer, Caruso, 2000 , p 267)

(Emotional Intelligence)

"

.(402 2005 ) "

"

"

.(12-11 2001 )

.(Salovey, Mayer, Woolery, 2001, p 280-281-282)

(Mayer, et al, 2000, p, 267)

.(254 2002 ) (O'Neil, 1995)

)

(

)

(

.(254 2002 )

(Baron, 1997, p2)

: " :

"

.(Baron, 1997, p 155) "

"

:

.

.

(2006 ) "

"

(Mayer, 2000, p.37 )

"

2000 ) (Reed & Clarke, 2000, p.68 )

" (174

"

"

) "

.(174 2000

:

.

.

:

.

.

.

"

)

(

.(25 2000 )"

:

2002

) Froebel

Bestalotzi

Rousseau

(41-40

Frowed ( )

.(41-40 2002 ).

:

(1967)

)

.(64 2001

(Arla, Sarah, 2004, p 1446)

).

(224-213 2000

2000 )

(224-213



.(56 2002 ) .(Wolff, Druskat, 2001)

(Jan,

.(56 2002 ) 1997)

.(56 2002 )

**4.2**

(1989)

: (2005)

:

" (Appel, 1984, 185)

"

"

(Roberts and Hunt, 1991, 334)

"

(Boone & Kurtz, 1992, 176)

:

"

"

"

(208 1992 )

"

" (210 1995 )

"

" (213 2001 )

"

" (33 2001 )

·  
: (2001 )

"

" : (2000 )

" (60 2003 )

(340 2004 )

(2005 )

: (2005 )

-1

-2

-3

-4

-5

-6

-7

: (1993)

: -1

( 1993 ) .

: -2

( 1993 )

: -3

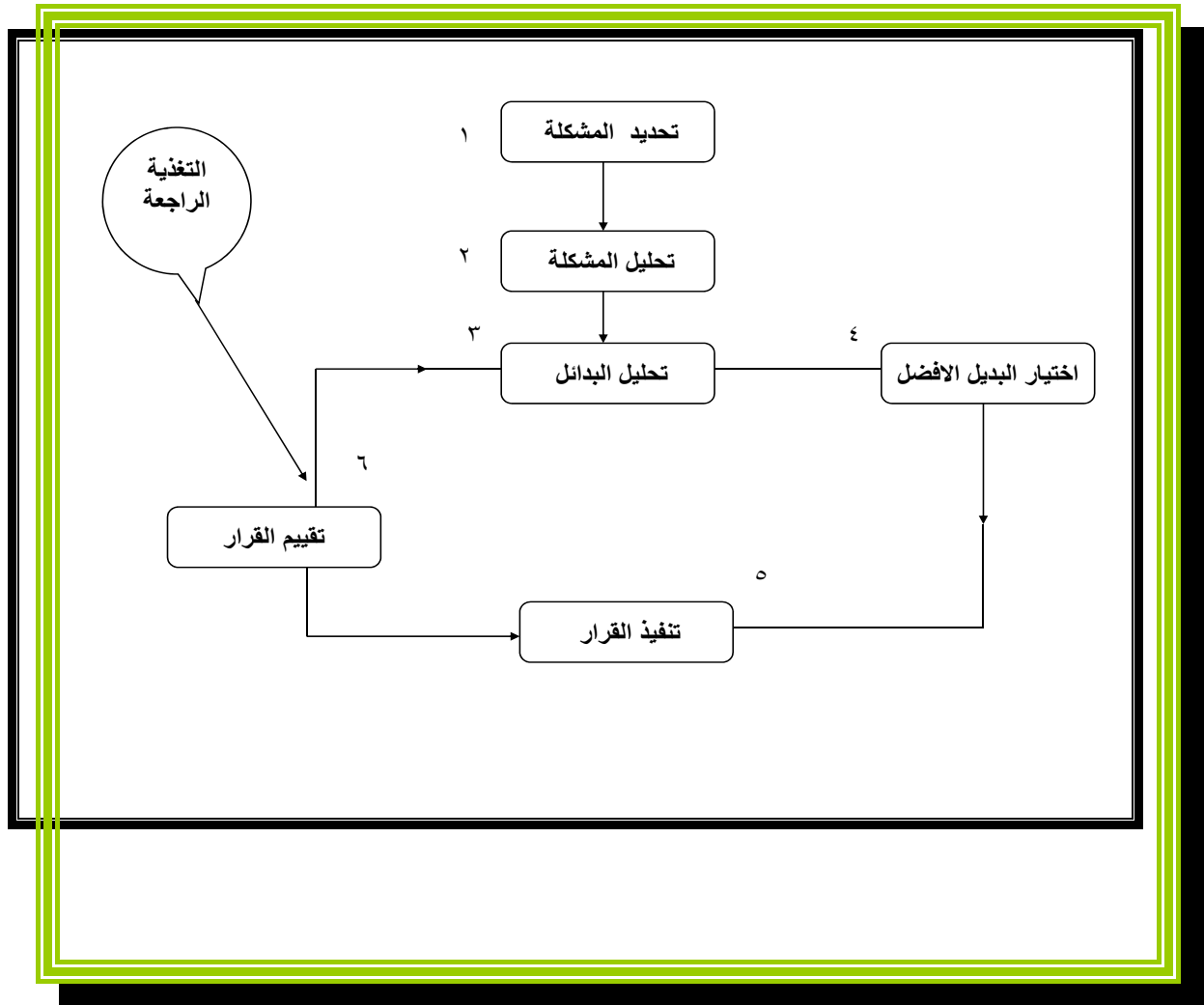
( 1993 ) .

: -4

( 1993 ) .

: -5

( 1993 ) "



( 7 )

:



:

( 2004- ) .

(2003 )

(1997)

(2003)

" "

:

(1998 )

:

⋮ \_\_\_\_\_ ⋮

⋮

⋮

⋮

(2004 - ) .

⋮ \_\_\_\_\_ ⋮

⋮

:( )

.(1998 )

:

.

:

.

.

.

.(1998 )

:

:

:

:( )

-1

:  
.(1998 )

:( ) -2

.(1994 ) (Gore, 1962)

:\_:\_\_\_\_\_:

:

:( )

.(1998 ) .

(Satisficing)

:( )

)

.(1998

: \_\_\_\_\_ :

:

: -1

(2001 ).

: -2

(2001 ). (Fuzzy Decision) (" )

: -3

(2001 ) .

: \_\_\_\_\_ :

:  
:( )

: (2000 )

:  
:( )  
( )

.(1985 )

:  
(2003 )

:

-1

-2

-3

-4

-5

-6

(222 1993 )

:

:

:



:

:

)

: (21 2001

-1

-2

-3

-4

-5

:

(AI)

.(67 2006 ) .

(AI)

Prospector, Mycin, Dendral

" "

"Soft "

.(67 2006 ) .

: (29 2006 )

-1

.(29 2006 )

-2

). .

.(29 2006

-3

.(29 2006 )

-4

- -

-

.

-

( )

.(29 2006 )

%37

:

:

"

"

( )

.( )

:

**5.2**

) (2006 )

.(

30

:

-1

) (2004)

.( ) (SOS)

" (54)

"

(11-8)

) :(2003)

.(

(13-11)

40

) (2002 )

.(

-

-

24

24

:

( ) -1

" % 55

" %50

( ) -2

-3

20 " 20

( Mri )

-4

" "

-5



) (2001)

.(

.

"

"

. 112 = 9

:

-1

:

"

:

-2

.

-3

.

-4

-5

-6

( ) (1996)

120

-1

:

-2

-3

"

( ) (1990)

:

-1

-2

) (1991)

.(

35

**6.2**

:(2004) (Intelligence Systems)

(Michael Negnevitsky )

-1

-2

-3

**.(Expert System ) (2001) (Robert .Craig)**

-1

-2

**. (Fuzzy Expert Systems ) (1995) ( Turban)**

Control

. Engineering

-1

-2

-3

" "

"

"

"

**:Emotional Intelligence (1995) Daniel Golman**

( )

"

"

Merroring

:

-1

." " " :

" " : -2

**Decision making style as a predictor of (1995)**

**career Decision making status and treatment Gains**

74

:

-1

**:(Artificial Neural Networks ) (1990) Frank Rose**

10

. neurons

( ) 60 ( )

Decision Support System & Expert )

(1990) Al - Ghamdi

:(System

DSS

DSS

-1

-2

-3

-1

-2

-3



(Artificial Intelligence)

(1984) Alain Bonnet

:

"

"

-1

-2

"

"

-3

-4

( International Artificial Intetelligence)

( Faygenbaum )

:( 1977)

Knowledge

Mycin

( 400 )

!

:

-1

Expert Shells

( Rules

-2

)

. (Knowledge Engineering )

( Knowledge Engineers )

-3

-4

:

-1

-2

-3

"

" "

-4

"

-5

-6

-7

-8

-9



.

:

:

:

:

**1.3**

:

)

13

-

-

-

-

-

-

-

-

-

-

.(

-

/

-

"

( 1 )

68	17	85	البنك العربي
16	4	20	بنك المؤسسة العربية المصرفية
36	9	45	بنك الأردن
32	8	40	بنك القاهرة عمان
16	4	20	بنك المال الأردني
20	5	25	البنك التجاري الأردني
21	5	27	البنك الأردني الكويتي
28	7	35	البنك الأهلي الأردني
52	13	65	بنك الإسكان للتجارة و التمويل
40	10	50	بنك الاستثمار العربي الأردني
36	9	45	البنك الأردني للاستثمار و التمويل
24	6	30	– بنك سوستيه / جنرال الأردن
20	5	25	بنك الاتحاد للادخار والاستثمار
409	102	512	المجموع

:

%25

409

98

104

102

6 =

" "

:

2.3

:

-1

-2



: **3.3**

:

-1

-2

-3

-4

-5

-6

: **4.3**

(SPSS)

:

)

-1

(

Paired Sample Test ( )

-2

-3



## Paired Sample Test

$$\mu - \frac{\mu - \mu}{\sqrt{\frac{\sigma^2}{n}}} - 1$$

$$\frac{\mu - \mu}{\sqrt{\frac{\sigma^2}{n}}} - 2$$

$$\mu - (50 - 30)$$

$$\mu - 50$$

\_\_\_\_\_ -3

\_\_\_\_\_ -4

\_\_\_\_\_

\_\_\_\_\_ -5

\_\_\_\_\_

1.4

-1

(2)

61.2	60	ذكر
38.8	38	أنثى
%100	98	المجموع الكلي

" 60

38

:

"

(3)

3.1	3	أقل من 25 سنة
16.3	16	من 25-30 سنة
48.0	47	30-45 سنة
32.7	32	أكثر من 45 سنة
%100	98	المجموع الكلي

3

" 47 30 -25 " 16 25

" 32 45-30

. 45

45-30

45-30

(4)

12.2	12	أقل من 5 سنوات
36.7	36	10-6 سنوات
20.4	20	15-11 سنة
30.6	30	أكثر من 15 سنة
<b>%100</b>	<b>98</b>	

5

" 12

" 30

10-6

" 36

. 15

"



- 4 :

(5)

4.1	4	دبلوم
67.3	66	بكالوريوس
10.2	10	دبلوم عالي
18.4	18	دراسات عليا
%100	98	

" 66

4

" 18

10

(6)

	12.2	12	مدير عام
	37.8	37	مدير دائرة
	19.4	19	مدير قسم
	30.6	30	مدير فرع
	%100	98	المجموع الكلي

" 12

" 19

37

" 30

:

.

( )

.946

.

:

:

.(0.05 = ∞)

Simple

regression

:

$$DesicionQu ality = \alpha + \beta artificial + ui$$

<b>R-Square</b>	<b>= 0.50</b>	
<b>T</b>	<b>4.951</b>	<b>9.902</b>
<b>Sig</b>	<b>0.00</b>	<b>0.00</b>
<b>F= 98.056</b>	<b>Sig= 0.00</b>	

: (7)

.50

Ui . 0.00.

98 =

..(0.05 = ∞)

$$Desicion\ Quality = \alpha + \beta_{emotional} + u_i$$

<b>R-Square</b>	<b>0.683</b>	
<b>T</b>	<b>3.035</b>	<b>14.373</b>
<b>Sig</b>	<b>0.003</b>	<b>0.00</b>
<b>F= 206.570</b>	<b>Sig= 0.00</b>	

: (8)

" 0.68

" "

" "

" "

"

= ∞)

:

...(0.05

:

"

.

-:

---

:

---

( 9 )

. ( - - )

.120	.148	.101	.083		
.239	.145	.323	.415		
.129	.093	.148	.113		
.207	.363	.147	.268		
.208*	.187	.210*	.176		
.040	.065	.038	.083		
.423**	.334**	.441**	.387**		
.00	.001	.00	.000		
.234*	.341**	.209*	.103		
.020	.001	.039	.313		

0.05

"

\*

0.01

"

\*\*



.0387

.00

0.38

.210

039.

.209

"

0.001

0.334

.

---

:

( 10 )

السؤال	الوسط الحسابي	الانحراف المعياري	الرتبة	الدرجة
1	4.6939	0.6947	1	مرتفعة
2	3.8980	0.9360	7	مرتفعة
3	3.9184	1.1368	5	مرتفعة
4	3.7551	1.3243	15	مرتفعة
5	3.5510	1.4005	20	متوسطة
6	3.8673	1.1633	8	مرتفعة
7	3.6531	1.2022	19	متوسطة
8	3.7755	1.1535	12	مرتفعة
9	3.7653	1.1288	14	مرتفعة
10	3.7653	1.1997	14	مرتفعة
11	4.6186	.6989	2	مرتفعة
12	3.9485	0.9829	4	مرتفعة
13	3.8144	1.1304	10	مرتفعة
14	3.4742	1.1910	24	متوسطة
15	3.7010	1.2261	17	مرتفعة
16	3.5258	1.1189	21	متوسطة
17	3.9072	1.0112	6	مرتفعة
18	3.7732	1.0945	13	مرتفعة
19	3.6598	1.2066	18	متوسطة
20	3.6598	1.1716	18	متوسطة
21	3.7938	1.1451	11	مرتفعة
22	3.8351	1.1336	9	مرتفعة
23	3.5052	1.3160	23	متوسطة
24	3.7526	1.1183	16	مرتفعة
25	3.5155	1.2675	22	متوسطة
26	4.4082	0.8833	3	مرتفعة

" "

جدول رقم ( 9 ) الأوساط الحسابية والانحرافات المعيارية لفقرات الذكاء الاصطناعي

السؤال	الوسط الحسابي	الرتبة	الانحراف المعياري	الدرجة
27	3.6633	14	1.1482	متوسطة
28	3.8163	6	1.0189	عالية
29	3.6224	17	1.1623	متوسطة
30	3.6429	16	1.2121	متوسطة
31	3.5204	21	1.2862	متوسطة
32	3.8776	4	1.1054	عالية
33	3.7551	10	1.1035	عالية
34	3.6735	13	1.1821	متوسطة
35	3.7143	11	1.1029	عالية
36	3.6531	15	1.1586	متوسطة
37	3.5000	23	1.0576	متوسطة
38	3.5102	22	1.2782	متوسطة
39	3.5408	20	1.1680	متوسطة
40	4.4184	1	0.8363	عالية
41	3.8980	3	0.9685	عالية
42	3.9184	2	1.0999	عالية
43	3.5000	23	1.0865	متوسطة
44	3.5714	19	1.3470	متوسطة
45	3.6020	18	1.1818	متوسطة
46	3.7755	9	1.2144	عالية
47	3.7857	5	0.9870	عالية
48	3.8571	8	1.0841	عالية
49	3.7959	7	0.9411	عالية
50	3.7143	11	1.1577	عالية
51	3.6837	12	1.0898	متوسطة
52	3.5408	20	1.3174	متوسطة
53	3.5102	22	1.1599	متوسطة

-3

جدول رقم ( 12 )

الدرجة	الانحراف المعياري	الرتبة	الوسط الحسابي	السؤال
عالية	0.8981	1	4.4490	1
عالية	1.0586	5	3.8469	2
عالية	0.9914	2	4.0816	3
متوسطة	1.1734	7	3.6735	4
متوسطة	1.3529	7	3.6735	5
متوسطة	1.1688	9	3.6429	6
عالية	1.1299	3	3.9592	7
عالية	1.1671	6	3.7551	8
عالية	1.0961	4	3.8776	9
متوسطة	1.1572	8	3.6633	10
متوسطة	1.1818	10	3.6020	11
متوسطة	1.0624	10	3.6020	12
متوسطة	1.3467	12	3.2041	13
متوسطة	1.2165	11	3.3265	14

3.5

## Paired Sample Test

( 13 )

### Paired Sample Test

مستوى المعنوية	قيمة ت	الانحراف المعياري	الوسط الحسابي	
		.6241	3.7398	جودة اتخاذ القرار
.528	.633	1.0898	3.6837	الإدراك الذاتي
.066	1.858	.8180	3.6224	السيطرة على النفس
.66	.433	.8971	3.7711	الكفاءة الاجتماعية
.115	1.589	.7239	3.6599	قراءة تعابير الوجه والتلميحات
.656	.447	.9501	3.7755	توازن العاطفة
.001	3.280	.7531	3.5595	الدوافع
.416	.817	1.1586	3.6532	حالات التفاؤل
.078	1.783	.9685	3.8980	حالات الغضب
0.00	8.273	.7358	4.4133	وجهات النظر المثيرة للنزاع
.104	1.641	.6357	3.8163	الثقة بالنفس

"

.

"

"

.

"

.

"

.

"

"

"

.

## Paired Sample Test

( 14 )

Paired Sample Test

مستوى المعنوية	قيمة ت	الانحراف المعياري	الوسط الحسابي	
		.6241	3.7398	جودة اتخاذ القرار
.366	.909	.8535	3.6735	البيئة
.034	2.151	.7305	3.8724	قدرة النظام
.281	1.084	.8796	3.6592	عملية التدريب والتطوير
.004	2.968	.6369	3.8865	نوع البرنامج الذكي المستخدم
.450	.758	.8266	3.7869	توفر الخبراء
.426	.799	.7019	3.7840	المعرفة الجاهزة
.350	.940	.8662	3.6701	نوع لغة البرمجة المستخدمة
.254	1.147	.7423	3.8061	سلوك المستخدم









Paired Sample T - Test

.7

.

.8

8.273 ( )

0.00

.

.9

.

.10

: :

:

-1

.

-2

"

.

-3

.

-4

"

.

-5

-6

-7

-8

-9

-10

			(2004 )	-
		(SOS )		
1			(2003)	-
			(2003)	-
			(2000)	-
	.14	1		
			(1985)	-
			.76-50 1 (13)	
			(2002)	-
			(2006 )	-
			(2005)	-

60

	( 2000)	-
	.	262
	(2001)	-
	.19-6	15
	(2001)	-
	.	
	(2002)	-
.14-5		
	(2003)	-
	.	
	(2001)	-
	.	
	(2005)	-
	.	
	(2002)	-
	188-144	35

(2000) -

.151-63

- سويلم، أحمد (2005) إدارة البنوك وبورصات الأوراق المالية، الشركة العربية للنشر والتوزيع، القاهرة، مصر.

( 2005 ) -

( 2001 ) -

(2001) -

.1

(1991 ) -

. 191

(1996) -

.3 - 28 -

(1995) -

.241-206 61

(2002 ) -



(2003) -

(2006) -

(2000 ) -

(

(2006) -

(2000) -

(1998) -

38 2-31.

(2002) -

(2007) -

(2001) -

الدراسات المالية والمصرفية، المجلد 9، ص 15-22.

(2001) -

(2001 ) -

2 (2004) -

(1993) -

1 ( )

(2005) -

5 (1998) -

1 ( ) (2003) -

- لاشين، عبد العاطي ومنسي، محمد (2002) إدارة البنوك، دار الهداية للنشر والتوزيع، القاهرة، مصر.

- محمد، يوسف كمال (1993) فقه الاقتصاد النقدي، دار الهداية للطباعة والنشر والتوزيع، القاهرة، مصر.

(2006) -

(2000) -

- (2007) -

(2001) -

1

(2006) -

- (2006) -

- 12 2

(2007) -

(1997) -

( )

(1993) -

( )

(2003) -

(1994) -

:

- Alain Bonnet (1984), Artificial Intelligence, Prentice Hall.
- AL-Ghamdi , S.M, (1990) (Decision Support System & Expert System:  
: The British Experience )
- Apple, A, (1984), A practical approach to Human Behavior in Business,  
Abeel and Howell Co. Columbus, Ohio.
- Arla L. Daya, Sarah A. Carroll, (2004), Using an ability-Based Measure  
of emotional intelligence to predict Individual performance, Group  
performance, and group citizenship behaviors, personality and individual  
defferences, v36, pp 1443-1458.
- Baron Reuven, Parker, James D.A , (2000) baron emotional Outient  
inventory Yourth version, MHS,US.
- Barto, A. G, Sutoon, R.S (1983) Neurolike adaptive elements that can  
solve difficult learning control problems, IEEE. Transactions on systems.  
Man and cybernetics, SMC 13, pp 834-846.
- Boden, M.A, (1977) Artificial Intelligence and Natural man, Basic  
books, New York.
- Boone, L.E, & Kurtz, D, L (1992) Management, 4th, ed, New York,  
McGraw-hill, Inc.
- Daneil Golman, Emotional Intelligence (1995) , Working With  
Emotional Intelligence
- Faygenbaum, D. (1977) International Artificial Intetelligence, Stanford  
University, NQS 15, PP. 122-145.
  
- Fogel, D.B (1995) Evolutionary computation tow and a new philosophy  
of machine intelligence IEEE press, Piscataway, N1.

- Frank Rose, Artificial Neural Networks: An American Quest for Artificial Intelligence, Harper & Row, 1990.
- Gardner H. (1993) frames of mind the glory of multiple intelligence, basic book, New York.
- Holland, J.A (1975) adaptation in Natural and artificial system. University of Michigan Press, Ann Arbor.
- Holland, J.H (1995) Hidden order. How adaptation builds complexity., Addison Wesley, reading, MA.
- Jean-Louis Laurière, L'intelligence artificielle : résolution de problèmes par l'homme et la machine, Eyrolles, Paris, 1987, 473 pp.
- Mau, W: Decision making style as a predictor of career Decision making status and treatment Gains. Journal of Career Assessment ,V3 N 1 , P 89 - 99 win 1995.
- Mayer et al, , Caruso, Emotional Intelligence , 2000 , p, 267)
- Negnevitsky , Michael ( 2004) Intelligence Systems, first edition , Hobart, Tasmania, Australia.
- Pratt, W. (1978), Digital image processing. New York, Wiley
- Roberts, H, and Unt, D. M (1991) Organizational Behavior, PWS-Kent, Publishing Co. Boston.
- Robert S. Craig et al ( paperback ) – 2001,( Expert System) Microsoft(r) Data Warehousing: Building Distributed Decision Support Systems.
- (Salovey, Mayer, Caruso, Emotional Intelligence , 2000, p 3 - p 267 )
- (Salovey, Mayer, Woolery, Emotional Intelligence 2001, p 280-281-282)
- Turban. E (1995) Fuzzy Expert Systems, business journal, vol 20, pp. 144-155.



: /

)

(

"



\*

(X)

. "

:

---

-1

30 - 25  25 -2

45  45 - 30

10 -6  5 -3

15  15 - 11

-4

-5

\_\_\_\_\_ :  
\_\_\_\_\_

\_\_\_\_\_ : \_\_\_\_\_ -

						-1
						-2
					/	-3
					/	-4
						-5
						-6
						-7
					IVR	-8
						-9
						-10

						-11
						-12
						-13
						-14
						-15
						-16
						-17
						-18
						-19
						-20
						-21
						-22
						-23
						-24
						-25

-

						-26
						-27
						-28
						-29
					,	-30
						-31
						-32
						-33
						-34
						-35
						-36
						-37
						-38
						-39

						-40
						-41
						-42
						-43
						-44
						-45
						-46
						-47
						-48
						-49
						-50
						-51
						-52
						-53

-

						-1
						-2
						-3
						-4
						-5
						-6
						-7
						-8
						-9
						-10
						-11
						-12
						-13
						14

: /

"

.

.....

.....

.....

.....

.....

.....

: \_\_\_\_\_

:

- -1

- -2