

Analyzing the Relationship between the Learning Organization Characteristics and Their Effects on Adopting Total Quality Management Criteria

Mohamed Al-Nuaimi, Ade Al-Nimri & Eyad Hudaib

Faculty of Business
University of Jordan / Middle East University
Amman, Jordan

Abstract

The main objective of this study is to analyze the relationship within the learning organization characteristics and their effects on adopting Total Quality Management criteria in Jordanian commercial banks, the researchers designed a questionnaire consisting of 64 paragraphs to gather the primary information from the study sample and by using many statistical methods the study found that the level of importance of mental models, personal mastery, team learning, shared vision and system thinking in Jordanian commercial banks was high while the level of importance of shared vision in Jordanian commercial banks was medium .

Keywords: Learning organization, Mental Models, Personal Vision Systems Thinking.

1. Introduction

The learning organization was a place where people continually expand their capacity to create the results they truly desire, expand new patterns of thinking and nurturing them (senge, 1990). The core of learning organization, there are five essential learning disciplines, personal mastery has to do with individual learning Mental model are about how individuals reflect on their own knowledge. Using such models to improve the internal understanding of an organization's functions and processes, shared vision implies a sense of group commitment to a matrix of organizational goals. The purpose of systems thinking is to understand relationships and interrelationships. The ability and rate at which organization can learn and react more quickly than competitors, has emerged as a pre – eminent sustainable source or competitive advantage, The total quality management principles are believed under pin the evolution of the learning organization and excellent first toward a learning organization.

2. Problem of the study and its Elements

The problem of this, study is focused on learning in order to adapt their products, services and work processes to the changing times and evolving needs of customers, Generative learning it means going beyond just fixing problems to seek continuously for ever more creative solutions. The study problem may be demonstrated via the question below.

1. What is the level of importance of learning organization characteristics in Jordanian commercial Banks?
2. What is the level of importance of total quality Management criteria in Jordanian commercial Banks?
3. Is there a relationship with in the learning organization characteristics?

3. Study hypothesis

Ho1: There is no significant relationship within the learning organization characteristics at level ($\alpha \leq 0.05$)

Ho2: There is no significant impact of learning organization characteristics on adopting total Quality Management criteria in Jordanian commercial Banks at level ($\alpha \leq 0.05$)

• The sub hypothesis

Ho2-1: There is no significant impact of Mental Models on adopting Total quality Management criteria

Ho2-2: There is no significant impact of personal mastery on adopting Total Quality Management

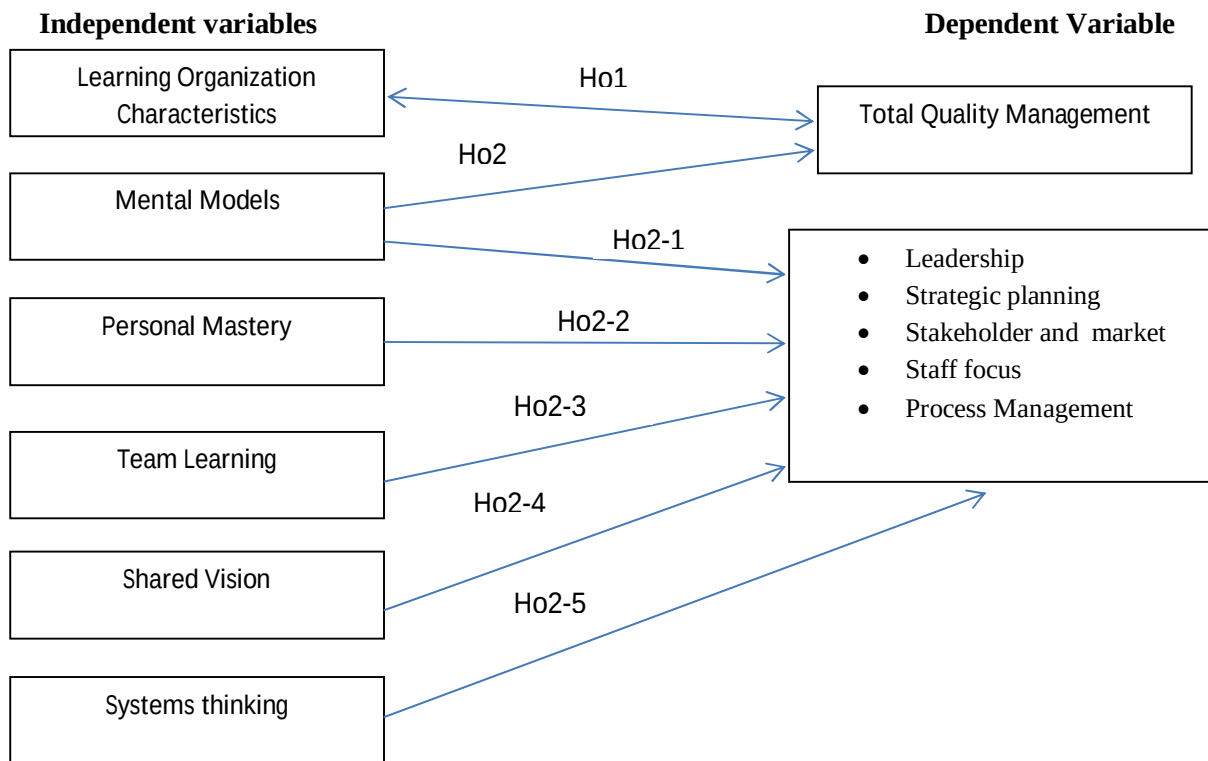
Ho2-3: There is no significant impact of team learning on adapting total quality management

Ho2-4: There is no significant impact of shared vision on adapting Total Quality Management.

Ho2-5: There is no significant impact to systems thinking of adopting total quality management.

4. Model of the Study

Figure (1) model of the study, Source: This model has been prepared by the researchers



5. The Data, Methodology and Results

The populations of the study were the employees of commercial banks in Jordan. The samples of the study were the employees who occupy positions such as (General Manager, G. M Assistant and HR & administrative Managers).

• Name of the commercial Banks in Jordan

- | | |
|-----------------------------|----------------------------|
| 1 Arab Bank | 10 Etihad Bank |
| 2 Housing Bank | 11 Bloom Bank |
| 3 Bank of Jordan | 12 Bank Audi |
| 4 Cairo Amman bank | 13 National Bank of kuwait |
| 5 Ahli Bank | 14 HSBC Bank |
| 6 Jordan Kuwait bank | 15 City Bank |
| 7 Arab Jordanian investment | 16 Standard Chartered |
| 8 Arab Banking Corporation | 17 Societe General Bank |
| 9 Jordan Commercial bank | 18 Capital Bank |

The Reliability of Questionnaire Dimensions

		Alpha Value α
Learning organization characteristics	1. Mental Models	77.3
	2. Personal Mastery	74.2
	3. Team Learning	81.1
	4. Shared Vision	77.2
	5. Systems thinking	73.7
Total Quality Management Criteria	6. leadership	89.1
	7. Strategic planning	82.8
	8. stake holder and market focus	72.6
	9. Staff Focus	71.6
	10. process Management	86.6
		82.6

Arithmetic Mean standard deviation

		Mean	S.D	
1	Mental Model	4.42	0.23	high
2	Personal Mastery	4.22	0.24	high
3	Team Learning	3.87	0.27	high
4	Shared Vision	3.65	0.34	Medium
5	Systems thinking	3.99	0.58	high
6	Leadership	4.16	0.52	high
7	Strategic Planning	3.99	0.64	high
8	Stake holders and Market focus	4.24	0.39	high
9	Staff Focus	3.97	0.66	high
10	Process Management	4.06	0.57	high

The researchers in the main hypothesis and study sub hypothesis, through simple Linear, Multiple Regression analysis with (F) test using ANOVA table. As follow:

HO1: There is a relationship within the Learning organization characteristics (Mental Models; Personal Mastery; Team Learning; Shared Vision; Systems Thinking)? To answer this hypothesis researcher user person correlation to measure the relationship within the Learning Organization Characteristics as shown in Table (1) below.

Table (1) Correlation Matrix within the Learning Organization Characteristics

	Mental Models	Personal Mastery	Team learning	Shared Vision	Systems Thinking
Mental Models	1.000				
Personal Mastery	0.469**	1.000			
Team Learning	0.502**	0.478**	1.000		
Shared Vision	0.038	0.099	0.139	1.000	
Systems Thinking	0.012	0.011	0.069	0.451**	1.000

** Correlation is significant the 0.01 level (2- tailed)

From Table (1) it is observed that there are four significant relationships between Learning Organization Characteristics variables varied in correlation intensity. The High correlation value between Mental and Team Learning Worth (0.502**) and is significant at level ($\alpha \leq 0.05$). on the hand, the lowest correlation value between shared vision and system thinking worth (0.451**) and is significant at level ($\alpha \leq 0.05$).

HO2: There is a significant impact to learning organization characteristic (Mental Models; personal Mastery ;Team Learning; Shared Vision; Systems Thinking) on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$). To test this hypothesis the researcher uses the multiple regressions to ensure the impact of learning organization characteristic on adopting Total Quality Management criteria in Jordanian Commercial Banks. As shown in Table (2).

Table (2): Multiple Regression Analysis Test Results to the Impact of Learning Organization Characteristics on Adopting Total Quality Management Criteria in Jordanian Commercial

	(R)	(R ²)	F Calculate	F Tabulated	β	Degree of freedom	Sig*
The impact of Learning Organization Characteristics on adopting Total Quality Management criteria	0.259	0.067	12.829	3.84	0.442	1	0.000
						178	
						179	

*The impact is significant at level ($\alpha \leq 0.05$)

Table (2) it is observed that there is a significant impact of Learning Organization characteristics on adopting Total Quality Management criteria in Jordanian Commercial Bank. The R was (0.259) at level ($\alpha \leq 0.05$), whereas the R² was (0.067). This means the (0.067) of adopting Total Quality Management criteria changes resulting from the changes in learning organization characteristics. As β was (0.442) this means the increase of one unit in learning organization characteristics concerned will increase adopting Total Quality Management criteria value (0.442). Assuring significant impact F_{calculate} was (12.829) and it's significant at level ($\alpha \leq 0.05$).

Comparing with F_{tabled} was (3.84), and that Assuring invalid main hypothesis, unaccepted null hypothesis and accepted alternative hypothesis: Hypothesis. Unaccepted null hypothesis and accepted alternative hypothesis: To ensure the impact of learning organization characteristics dimensions on adopting Total Quality Management criteria in Jordanian Commercial Bank, the researcher divides the hypothesis into five-sub hypothesis, and uses the Simple Regression analysis to test each sub hypothesis. As the following: HO_{2-1} : There is no significant impact of Mental Models on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$). to test this hypothesis; the researchers use the Simple regression analysis to ensure the impact of Mental Models on adopting Total Quality Management criteria in Jordanian Commercial Banks, as shown in Table (3) below.

There is a significant impact of Learning Organization characteristics on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$)

Table (3): Simple regression analysis test results to the impact of Mental Models on adoption Total Quality Management criteria in Jordanian Commercial banks

	(R)	(R ²)	F Calculate	F Tabulated	β	Degree of freedom	Sig*
The impact of Mental Models on adopting Total Quality Management criteria	0.348	0.121	24.581	3.84	3.84	1	0.000
						178	
						179	

*The impact is significant at level ($\alpha \leq 0.05$)

Table (3) it is observed that there is a significant impact of Mental Models on adopting Total Quality Management criteria in Jordanian Commercial Banks. The R was (0.348) at level ($\alpha \leq 0.05$), whereas the R^2 was (0.121). This means the (0.121) of adopting Total Quality Management criteria changes resulting from the changes resulting from the changes in Mental Models. As β was (0.490) this means the increase of one unit in Mental Model concerned will increase adopting Total Quality Management criteria value (0.490).

Assuring significant impact $F_{\text{calculate}}$ was (24.581) and it's significant at level ($\alpha \leq 0.05$), comparing with F_{tabled} was (3.84), and that Assuring invalid first sub- hypothesis. Unaccepted null Hypothesis and accepted alternative hypothesis:

There is a significant impact Mental Models on adopting on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$)

HO_{2-2} : There is no significant impact of Personal Mastery on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$). to test this hypothesis; the researcher uses the Simple regression analysis to ensure the impact of Personal Mastery on adopting Total Quality Management criteria in Jordanian Commercial Banks, as shown in Table (4).

Table (4): Simple regression analysis test results to the impact of Personal Mastery on adoption Total Quality Management criteria in Jordanian Commercial banks

	(R)	(R ²)	F Calculate	F Tabulated	β	Degree of freedom	Sig*
The impact Personal Mastery on adopting Total Quality Management criteria	0.280	0.079	15.179	3.84	0.382	1	0.000
						178	
						179	

*The impact is significant at level ($\alpha \leq 0.05$)

Table (4) it is observed that there is a significant impact of Personal Mastery on adopting Total Quality Management criteria in Jordanian Commercial Banks. The R was (0.280) at level ($\alpha \leq 0.05$), whereas the R^2 was (0.079). This means the (0.079) of adopting Total Quality Management criteria changes resulting from the changes resulting from the changes in Personal Mastery. As β was (0.382) this means the increase of one unit in Personal Mastery concerned will increase adopting Total Quality Management criteria value (0.382). Assuring significant impact $F_{\text{calculate}}$ was (15.179) and is significant at level ($\alpha \leq 0.05$), comparing with F_{tabled} was (3.84), and that Assuring invalid Second sub- hypothesis. Unaccepted null Hypothesis and accepted alternative hypothesis:

There is a significant impact Personal Mastery on adopting on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$)

HO_{2-3} : There is no significant impact of Team learning on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$). to test this hypothesis; the researcher uses the Simple regression analysis to ensure the impact of Team learning on adopting Total Quality Management criteria in Jordanian Commercial Banks, as shown in Table (5).

Table (5): Simple Regression Analysis Test Results to the Impact of Team Learning On Adoption Total Quality Management Criteria in Jordanian Commercial Banks

	(R)	(R ²)	F Calculate	F Tabulated	β	Degree of freedom	Sig*
The Impact Team Learning on adopting Total Quality Management criteria	0.169	0.029	5.226	3.84	0.198	1	0.000
						178	
						179	

*The impact is significant at level ($\alpha \leq 0.05$)

Table (5) it is observed that there is a significant impact of Team Learning on adopting Total Quality Management criteria in Jordanian Commercial Banks. The R was (0.169) at level ($\alpha \leq 0.05$), whereas the R^2 was (0.029). This means the (0.029) of adopting Total Quality Management criteria changes resulting from the changes resulting from the changes in Team Learning. As β was (0.198) this means the increase of one unit in Team Learning concerned will increase adopting Total Quality Management criteria value (0.198). Assuring significant impact $F_{\text{calculate}}$ was (5.226) and is significant at level ($\alpha \leq 0.05$), comparing with F_{tabled} was (3.84), and that Assuring invalid Third sub- hypothesis. Unaccepted null Hypothesis and accepted alternative hypothesis:

HO_{2-4} : There is no significant impact of Shared Vision on adopting Total Quality Management Criteria in Jordanian commercial banks at level ($\alpha \leq 0.05$).

To test this hypothesis, the researcher uses the Simple regression analysis to ensure the impact of Shared Vision on adopting Total Quality Management criteria in Jordanian Commercial Banks, as shown in Table (6).

Table (6): Simple regression analysis test results to the impact of Shared Vision on adoption Total Quality Management criteria in Jordanian Commercial bank

	(R)	(R ²)	F Calculate	F Tabulated	β	Degree of freedom	Sig*
The Impact Shared Vision on adopting Total Quality Management criteria	0.557	0.311	26.884	3.84	0.884	1	0.000
						178	
						179	

*The impact is significant at level ($\alpha \leq 0.05$)

Table (6) it is observed that there is a significant impact of Shared Vision on adopting Total Quality Management criteria in Jordanian Commercial Banks. The R was (0.557) at level ($\alpha \leq 0.05$), whereas the R^2 was (0.311). This means the (0.311) of adopting Total Quality Management criteria changes resulting from the changes resulting from the changes in Shared Vision. As β was (0.884) this means the increase of one unit in Shared Vision concerned will increase adopting Total Quality Management criteria value (0.884). Assuring significant impact $F_{\text{calculate}}$ was (26.884) and is significant at level ($\alpha \leq 0.05$), comparing with F_{tabled} was (3.84), and that Assuring invalid fourth sub- hypothesis. Unaccepted null Hypothesis and accepted alternative hypothesis:

There is a significant impact Team Learning on adopting on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$)

H_{O2-5} : There is no significant impact of Systems Thinking on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$). to test this hypothesis; the researcher uses the Simple regression analysis to ensure the impact of systems thinking on adopting Total Quality Management criteria in Jordanian Commercial Banks, as shown in Table (7).

There is a significant impact Shared Vision on adopting on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$)

Table (7): Simple Regression Analysis Test Results to the Impact of Systems Thinking On Adoption Total Quality Management Criteria in Jordanian Commercial Banks

	(R)	(R ²)	F Calculate	F Tabulated	β	Degree of freedom	Sig*
The Impact Systems Thinking on adopting Total Quality Management criteria	0.546	0.299	33.619	3.84	0.960	1	0.000
						178	
						179	

*The impact is significant at level ($\alpha \leq 0.05$)

Table (7) it is observed that there is a significant impact of Systems Thinking on adopting Total Quality Management criteria in Jordanian Commercial Banks. The R was (0.546) at level ($\alpha \leq 0.05$), whereas the R^2 was (0.299). This means the (0.299) of adopting Total Quality Management criteria changes resulting from the changes resulting from the changes in Systems Thinking. As β was (0.960) this means the increase of one unit in Systems Thinking concerned will increase adopting Total Quality Management criteria value (0.960).

Assuring significant impact $F_{\text{calculate}}$ was (33.619) and is significant at level ($\alpha \leq 0.05$), comparing with F_{tabled} was (3.84), and that Assuring invalid fifth sub- hypothesis. Unaccepted null Hypothesis and accepted alternative hypothesis:

There is a significant impact Systems Thinking on adopting on adopting Total Quality Management criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$)

6. Summary, Conclusion and Recommendations

The current study inquired a set of questions, placing the hypothesis and its relation to the impact within the study variables. The study arrived at many results that contributed to solve the study problem, answering the questions and hypothesis of the study. The main results are:

- The level of importance of Mental Models; Personal Mastery; Team Learning and Systems thinking in Jordanian Commercial Banks was high.
- The level of importance of the Shared Vision in Jordanian Commercial Banks was Medium.
- The level of importance of the Leadership, Strategic Planning, Stakeholders and Market focus, Staff Focus and Process Management in Jordanian Commercial Banks was Medium.
- There is a relationship between Mental Models and Personal Mastery with the value of (0.469**) at level ($\alpha \leq 0.05$).
- There is a relationship between Mental Models and Team Learning with the value of (0.502**) at level ($\alpha \leq 0.05$).
- There is a relationship between Personal Mastery and Team Learning and with the value of (0.478**) at level ($\alpha \leq 0.05$).
- There is a relationship between Shared Vision and Systems Thinking and with the value of (0.451**) at level ($\alpha \leq 0.05$).
- There is a Significant impact of Mental Models on adopting Total Quality Management Criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$).
- There is a Significant impact of Personal Mastery on adopting Total Quality Management Criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$).
- There is a Significant impact of Team Learning on adopting Total Quality Management Criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$).
- There is a Significant impact of Shared Vision on adopting Total Quality Management Criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$).
- There is a Significant impact of Systems Thinking on adopting Total Quality Management Criteria in Jordanian Commercial Banks at level ($\alpha \leq 0.05$).

Based on the above results, the researchers proposed the following recommendations:

- Enhance the vision of the banks to make changes in the way the staff members think and act.
- Enhance the employees' freedom of expressing their ideas and themselves without limitations.
- Support the top management to forecast the future vision to solve day-to-day problems.
- Develop the bank's objectives to face the environmental changes.
- Enhance employees' experience to develop banks' activities without fears from failure.
- Develop the banks' recruiting systems for the employees to gain competitive advantages.

References

- Aramburu, Nekane; Josune Saenz and Olga Rivera, (2006), "Organizational learning, change process, and evolution of management systems: Empirical evidence from the Basque Region", *The Learning Organization*, Vol. 13 No. 5: 525-536.
- Baidoun, Samir, (2004), "The implementation of TQM philosophy in Palestinian organization: a proposed non-prescriptive generic framework", *The TQM Magazine*, Volume 16, Number 3: 174-185.
- Buta, C. and Karkhanis, S. (1996), "Perceptions of Quality in the Australian Construction industry", *National Australian Institute of Project Management Conference*, Adelaide: 162-67.
- Calvert, G., Mobley, S. and Marshall, L. (1994), "Grasping the learning organization", *Training and Development*, 48(6): 38-43.
- Campbell, T. and Cairns, H. (1994), "Developing and measuring the learning organization: from buzz words to behaviors", *Industrial and Commercial Training*, 26(7): 10-15.
- Costin, H. (1999), "Exploring the concepts underlying total quality management", In Costin, H, *Strategies for Quality Improvement*: 7-26, Harcourt Brace, Orlando.
- Curkovic, S., Melnyk, S., Calantone, R., and Handfield, R. (2000), "Validating the Malcolm Baldrige National Quality Award Framework through structural equation modeling", *International journal of Production Research*, 38(4): 765-791.

- Dymock, Darryl & McCarthy, Carmel, (2006), "Towards a learning organization? Employee perceptions", *The Learning Organization*, Vol. 13, No.5: 525-536.
- Feigenbaum, A.V. (1991), "Total Quality Control", (3rd ed.). New York: McGraw- Hill.
- Ferguson - Amores, Maris c; Manuel Garcia-Rodriguez & Jose Ruiz-Navarro, (2005), "Strategies of Renewal: The Transition from Total Quality Management to the Learning Organization", *Management Learning*, Vol. 36, No.2: 1350-5076.
- Garvin, D.A., (1993), "Building a learning organization", *Harvard Business Review*, July-August: 78-91.
- Jashapara, A., (2003), "Cognition, culture and competition: an empirical test of the learning organization", *The Learning Organization*, Vol. 10 No. 1: 31-50.
- Jones, A.M. and Hendry, C. (1992), "The learning organization: a review of literature and practice", *The HRD Partnership*.
- Juran, J.M. (1986), "The quality trilogy: a universal approach to managing for quality", *Quality Progress*, 19: 19-24.
- Kofman, F. and Senge, P.M. (1993), "Communities of commitment: The heart of learning organizations", *Organizational Dynamics*, 22(2): 5-23.
- Landy, F.J. and Farr, J.L. (1983), "The measurement of work performance: methods, theory, and applications", Academic Press, London.
- Leifch, C., Harrison, R., Burgoyne, J., and Blatern, C. (1996), "Learning organizations: the measurement of company performance", *Journal of European Industrial Training*, 20(1): 31.
- Liao, Li-Fen, (2006), "A learning organization perspective on knowledge-sharing behavior and firm innovation", *Human Systems Management*, 25:227-236.
- Mohanty, R.P & Lakhe, R.P, (1998), "Factors affecting TQM implementation: an empirical study in Indian industry", *Production Planning & Control*, Vol. 9, No. 5: 511- 520.
- Moilanen, R. (1999), "Finnish learning organizations: structure and styles", *The Entrepreneurial Executive*, 4: 1 -40.
- Senge, P. M., Roberts, C., Ross, R.B., Smith, B.J., & Kleiner, A. (1994), "The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization", Doubleday Dell, the Putnam Publishing Group, New York.
- Smith, C. and Kendall, L.M, (1963), "Retranslation of expectations: An approach to the construction of unambiguous anchors for rating scales", *Journal of Applied Psychology*, 47: 149-55.