INNOVATION AND PROFESSIONAL ETHICS FOR ADVANCEMENT IN TECHNOLOGY. A STUDY ABOUT DIFFERENCE AMONG MULTINATIONAL INDUSTRIAL PLANTS AND ACADEMIC SYSTEMS IN THE TECHNOLOGIC INSTITUTE OF REYNOSA, MEXICO (ITR).

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INTRODUCTION. - Last researches about technologies in manufacturing processes, demonstrate that advanced manufacturing technologies (AMT) is relating with innovation, ethic values, leadership ethics, consensus, and credos of organizations. The best representation of them are professional ethic values and innovation, because they impulse people to give opportunity and aptitude to understand the meaning of balance, development and harmony on technological progress, in improvement and evolution of organizations. These concepts permit healthy grow of industrial plants and true coexistence of globalization, represented in accelerated fight of equivalences to obtain more efficacy and efficiency in a productive social function in economical field. The same circumstances are presents in academic community of Instituto Tecnologico de Reynosa, Mexico (ITR) this was, the reason to connect both phenomena in this research. Rynes (2001) thinks it is important to attach directives and executives of industrial organizations to universities that give support to industrial systems, in direction to reduce the wide gap of knowledge among both groups of professionals, that some authors have been writing in theoretical field, then, he said that there are no researches under empirical test connected with innovation and creativity. Asomoza, Acosta, & Cervantes (2001) recently express the same inquietude. The new concept of axiology desire a change in a personal construction system of values, making people more conscious and rational of its actions and responsibilities, with total autonomy, remote of traditionalist methodologies that diminish the professional excellence. Personal progress has positive association to high industrial productivity in social and economic prosperity, according to individual ethic values, like self-respect, auto-determination, self-esteem, auto-realization and autonomy in a constructive organizational climate.
Science and technology are founded into society ethic values and truths, with firm conviction of positivism. Real social relation, never exist or patronizes anti-values, but these theoretic speculations seem to reside out of our world, because each day has more lies, treachery, disloyalty and betray. Gilbert (2000) proposes to increase subjects and programs of ethics in business schools, in order to compensate disloyalty practices and

lack of ethics in business world, even though commerce and work moral were stated firmly before Plato and Aristotle; contemporary philosophers still ponder today.

PROBLEMATIC SITUATION. - Globalization is changing traditional cultural systems and interaction among countries and people. Principal modification is human values in Multinational Corporations (MNCs). Change is itself a real value and at present represents the value of values. Industrial systems reinforce creativity and innovation through changes, consolidating new technologies in progress and perfection.

Values as regulators of human function, organizations and society are useful in administration, specially absolute values as truth, good and utility, relative values as generosity, docility, respect, humility, dependency and poverty try to find their real meaning because they can signify anti-values. The arrangement of values among people, organizations and society has been accommodating new and original forms of thinking, philosophies and ideologies, beyond objectivity of one doctrine supported for utilitarian interest.

This research revised professional ethic values like pragmatic moral, freedom, obligation, responsibility and virtue as general moral excellence; happiness, reflection and good will additionally. Self-compromise, veracity, responsibility and mission performance were studied as individual variables. As ethic variables of individual interaction with organization we recognize compromise, identification with organization, accept an organizational conscience. These values were dimensionalized in order to integrate the fundamental objectives of the enterprise, in a common contriving function of moral order as social organization, but they were considered representatively personnel behavior. Some employees see these values with indifference and others think they are the maximum expression of labor activity (Powers, 2000).

Mitchel, Smith, Seawright and Morse (2000) recently identify cultural values in interactive spaces on the way to form an order, adaptation and complacency to increase competence and talent expansion through different cultural models, in the most transcendent challenge of creativity. These authors found in their study of seven countries that experience, operative domain and a good will were important elements of individual structure of employees; about will disposition, individualism, aptitude and special skills, Mexico/Japan were the most qualify groups, over Chile/China and USA/Canada. Chile, Mexico had high punctuation in skillfulness and execution aptitude. Tiessen (1999) observed that professional values in university students of Japan have essential principle that have to be the best of both socio-economical worlds, into an individualist orientation, with profound respect to group disposition and constant support to organizational stability and security, without modification of their firm philosophical tradition. India and China have strong philosophical tradition like Japan, but they have different international dynamic behavior for social and economic situations. China demonstrates more success in economic development but it needs to consider coercive forces as internal policy for high risk of this problem in future. India requires re-orientation of permissive forces as a cultural system if it wants to have new industrial an economic opportunity in globalization (Kumar 2000).

As ethic values, innovation is essential in order to form professionals capable to handle new technological systems that help creativity in industrial plants. Innovation in this way must be incorporated to any work method. The strong of both concepts will be in a rapid solution of severe problems in critic moments. Innovation systems in strategic R&D areas of product, manufacturing process and marketing situate industrial plants in preferential place for globalization. On the way to innovate standardization of marketing process, design products and exportation polices, in a dichotomized frame of exterior commerce, Mexico achieved 68 % of exportation to developed countries, when Brazil export 23 %, and Chile 20.5 percent (Aulakh, 2000). Technological development and innovation are closely connected; and both take high risks when changes obsolete schemes of manufacture and replace them for new models, taking into consideration the elevated level of turbulence of today industrial and economic systems. High quality products are an indicator of advanced technological development and security element for a good client preservation service (Darling, 1999). Oldham and Cummings (1996) positioned some cultural conditions of organizational environment associated to innovation and creativity of employees, that have been reflecting in labor activities. Balkin, Markman & Gomez-Mejia (2000) have asserted that organizations with high technologies demonstrate firm association between innovation and compensation for long term in CEO.

A study of more than two thousand employees, reveal the level in which cultural systems in labor environment an organizational structure, protect requirements of labor creativity (Shalley, Gilson & Blum, 2000). Creativity is no more unitarian construction in theoretical homogeneity, and it is possible to find this creativity as a representation in tetravalent matrix, with expected, responsive, proactive and contributory expressions that satisfy internal, external, open or close conditions, in the direction of artistic creation, profound think, professional creativity, philosophical reflection, re-orientation of impulsive ideas, or obtain internal participative reflection (Unsworth, 2001).

Ethics values, innovation and creativity are important variables to support technological development, following primordial economic prosperity of the world. MNCs and all the countries over the world know that advanced technologies are the only viable way to obtain richness in the future, but it is necessary to provide a new dimensionality and orientation to leadership, that demand high personal values in an innovative vision of the knowledge and firm projective imagination in our reality of globalization. It is articulated movement between scientific knowledge and technical application, where pure creativity and order, represent splendid realization of the most symbolic function in commanded mission of enterprises permitting that science, knowledge and technology have an logic order as process. This is to see totality and not only part of the process, and to see people not as limited or impotent individuals. It is to see active participants in an innovative model of reality, into systemic thinking that let us observe how smart organizations think about the world (Senge, 1993).

Organizations and enterprises in industrial system have more than economic responsibility with society, that may implicate severe risk for environment turbulence as labor market contraction, lack of reliability for management exercise, absence of vision and functions to perform social development, ignore problems of globalization, all these factors and circumstances will become engaged with social future of society (Siliceo, Casares & Gonzalez, 1999). It is important to know that complete occupation does not guarantee social and economic success; first years of last decade were created eight millions of new jobs in USA, 60 % of them in high level of manager activities, but it was impossible to increase success rates in these business (Miller & Vaughan, 2001). Ariss, Raghunathan & Kunnathor (2000) found that modern manufacturing through advanced manufacturing technologies (AMT) offer as many benefits to small business as MNCs.

Deyo & Doner (2000) stresses that cooperation networks inside and outside of industrial plants promote collective learning, sharing sources and managing collaboration in an effort to augment technological development in direction of find success and provide more industrial expansion. Reinforce of this attainment was possible managing subcultures through loyalty and confidence as essential principle of prosperity. Networks and innovation were important factors to improve richness for enterprise extension (Ireland, Hitt, Camp & Sexton, 2001). Japan is the most experienced country in collaboration networks, over 553 projects of new product development (NPD) showed that entailing project technology and opportune marketing systems was possible to reduce technological incertitude levels (Song & Montoya Weiss, 2001).
Hall & Petzall, (2000) illustrate profound transition changes in story process of forty years in Singapore society. Singapore's per capita GNP had been less than US $50 in 1960, but was 1993 US$12,370 and $27000 in 1996. Singapore's growth rate during the 1970 averaged 9.4% and was 7.4% in the 1980s and today has the fifth place of prosperity in the world, only surpassed for Luxemburg, USA, Switzerland, and Hong Kong. Singapore had more than five thousand MNCs in 1998, looking in favor of efficiency benefits and infrastructure of newly industrializing economies (NIE's), that have excellent access to raw materials, diverse and sufficient amount of energy, petrochemicals, efficient educational systems in technological field, among some of them. This country reinvest 18,500 millions of dollars to improve AMT, because inversion return rate in this field has been consistently high on last years. This inversion increase automatic manufacturing systems, robotics, computerized numeric control, and CAD/CAM systems. Since 1991 The Government of this country has had programs for industrial advancing technologies and augment from 3 to 4% the national annual rate of productivity until 2000, its principal policies where directed to provide more incentives at MNCs that developed new technologies in Singapore, and involve public sector of government in scientific and technological research and include industrial systems and commerce sector on the way to grant support to this work program. The ratio of scientists employed in R&D activities in the workforce, increased three hundred percent between 1988 and 1998 (Singapore had 2,512 scientists an engineers employed in R&D per million persons, compared with 2,417 for the United Kingdom and 3,732 for USA). Singapore enhances the attractiveness of the apprenticeship system in the eyes of both graduating students and employers, the New Apprenticeship Scheme (NAS). This scheme, administered by the Institute of Technical Education (IET), was partly modeled on high successful German "dual system" of skills training. This was part of a general trend for the educational system to be remodeled along the lines of the German, and away from the British system, with its greater emphasis on technical and vocational training and mathematical skills formation in an assumption of Wong, according to Kenneth Hall.

DEVELOPMENT. - The problematic situation expound and the theoretical framework referred in a synthetic commentary, besides of realizing interviews with high level directors of manufacturing plants, professors and academic professionals of ITR, let us to present the following hypothesis:
I. - The professional ethic values and innovation are important factors for development and application of advanced manufacturing technologies (AMT).

II. - The scheme of professional ethic values in executives and engineers at multinational industrial plants, are different of the professors and academic professionals of ITR.
III. - The computerized integration of product design, administration and acquisition control are the most important factors to support manufacturing and assembly process.
IV. - Organizational conscience is preliminary requisite for organizational responsibility and its necessary conditions are computer manufacturing process, professional responsibility, identification with organization and organizational compromise.
V. - Professional responsibility is a conjunction of professional ethic and ethic of organization in operative process of work.
VI. - Opportunity of Changes are so close to computer systems of product design, manufacturing, acquisition control, general administration and some representative impacts of change.
In order to demonstrate these hypothesis and variables under study, we had to give dimensions to professional ethic values, innovation and technology in industrial plants system. Obtaining this knowledge we developed three scales that were applied to manufacturing directors of research field in 35 industrial AMT of MNCs in our region of Reynosa, Tam, Mexico (45 % of installed capacity of advanced technologies).

RESULTS. - The data collected from our empiric test applied to industrial sites under study, were treated under inferential statistics. The analysis of factors had useful information respecting our three scales that are showing in figures one to three. They have factorial coefficients, the eigenvalues, Kaiser-Meyer-Olkin MSA test, Bartlett test of sphericity, and level of significance. Veracity, reliability and scaling tests demonstrated that three scales are excellent in order to measure the phenomena in study. The scale of professional ethic values has three factors, the first named “Organizational obligation”, second was identify with “Recognition to organization”, the last represents “Conformation of the reality”. The first factor of innovation scale constitute “labor change” second represents “Negative effects of the changes” and third is “Positive effects of change”. The scale of technology then has three factors, first represents “Protection of computerized manufacturing”, second conform the “Integration of computerized construction” and the last is a “Conservator Factor”.
Discriminant Analysis test was practiced for the variable “computerized manufacturing process” that gave us one useful discrimitative function with a value of lambda’s of Wilks’ of 0.10, canonic correlation of 0.88 and a level of significance of 0.0002; this function was integrated through of product design, administration and acquisition control. The 77 % of the industrial plants under study were very well classified (Figure No. 5).
Organizational responsibility like dependent variable we practiced discriminant analysis and it gave us one useful function (figure 6), with lambda’s of Wilks’ of 0.08, eigenvalue of 6.48, canonical correlation of 0.93 and significance level of 0.0001. This discriminant function was constituted with the variable “organizational conscience”. 97 % of industrial plants under this study were correctly classified. The same test in variable “professional responsibility” gave us an useful function, with Wilks’ lambda of 0.21, eigenvalue of 2.10, canonical correlation of 0.83, and significance level of 0.0005, this function was integrates with variables “identification with organization” and “computer acquisition and row material”. 86 % of cases in study were correctly classified (figure 7).

The analysis of variable “opportunity of changes” had two discriminant functions that are visible in figure 8, the first of them was represented for “negative impact of change” and four variables with negative coefficients: acquisition & raw material control, product design, manufacture process and preference to representative changes. Second function was integrated with computer administration and investment of capital in million of Dollars. This study had Box M of 274.95 and significance level of 0.0001. 86 % of cases on study were correctly classified.

CONCLUSIONS. -This research studied manufacturing plants of MNCs, in constant changes, that utilize AMT in environment of NIE. Under this premise figure four results, demonstrate high levels of factorial association among computerized systems, integrated for manufacturing process, product design, administration, raw material acquisition/control, and maintaining services in the first factor, that explain 38% of our phenomena in study connecting advanced transformation manufacturing, with second factor that represents innovative attitude to work and correspond to17% of our knowledge, specially in representative and permissive changes. Third factor associates proficient ethic values in professional and organizational responsibility for a total comprehension of 69% in our observable fact. Three factors explain perfect interaction that exist among technological manufacturing process, innovation systems and professional ethic values in industrial practice of our sample. According to our explanation the first hypothesis is most accepted.

It was possible to factorized professional ethic values of ITR in academic personnel. Figure 9 summarize professional ethic variables in two factors. First factor represents “integrity principle” with its dimensions of responsibility, loyalty, veracity and conscience that professors have on decisions and performance activities as persons and organization members. Second factor symbolize “acknowledgement disposition” or rational and emotional identification with standing norms of organization as a consolidation factor that associate professionalism of professors with high objectives and mission of organization. We want to signal that these associations are not in the same direction among professors and departmental polices and functions at school. On the contrary personnel of MNCs have been identified plenty with policies and functions of industrial plants, interested in bigger recognition of responsibilities and compromises, under a creation of reality that employees enjoy in harmony. Here we have difference between professors with high professional goals, in an institutional superstructure identification of knowledge and straight principles of integrity in personal and professional activities that limited the field of action of professors in creative collaboration with other professional groups and society. In this order of ideas let me express that profiles and schemes of ethic values between professors of ITR and executives of MNCs industrial plants are different and second hypothesis most be accepted.

New technologies developed in manufacturing are supported by mechatronics and computation. Product design trough computerized process, has been a keystone of changes, and today computerized administration has the most transcendental role for these changes (Asomoza, Acosta & Cervantes, 2001); acquisition control for raw materials has been important too. Figure number three, gives you an idea about strong association between administration and acquisition/control in the first factor there is relation as well, among this factor and product design and manufacturing/assembly. It was possible to find a useful discriminant function, for variable “manufacturing/assembly process” as we can see at figure number five, that was integrated with product design, administration and acquisition/control of raw materials, due to high level of association among variables. Considering factorial and discriminant tests results, third hypothesis must be accepted.

We practiced discriminant analysis to dependent variable organizational responsibility that gave us one useful discriminant function constituted with variable “organizational conscience” (figure 6). In a second plane, we may find variables as manufacturing process, professional responsibility, identification with organization and organizational compromise that unify elements, of responsiveness and recognition between personal structures of professionals, and correspondent configuration of organization. These affirmations permit to admit fourth hypothesis.

Identification with organization and computerized acquisition create a discriminant function, associated to professional responsibility, condition that permit us to accept fifth hypothesis (figure 7). This research explains that opportunity of changes has relation with preference to representative changes and impacts that they produce. In the same way changes to introduction of innovation, were more important in manufacturing transformation in product design and acquisition/control as first discriminant function, with high level of significance. The second discriminant function was very important in vectorial force, integrated for computer administration and capital investment as transcendental components to produce and reach optimum change (figure 8). These statements let us accept a sixth hypothesis. We want to remark that variables in essential conformation of manufacturing transformation have negative association to dependent variable (opportunity of change). Subsist possibility to interpret this last fact, as an intense effort of executive personnel in MNCs industrial plants, to break inertia of headquarters for maintain hegemony, in applicative changes that industrial plants usually make.

Important findings of this research will be analyzed and evaluated scrupulously in an other publication, because these interpretations exceed our principal goals in this paper, it must be stressed that professional ethics values and innovation, really are important factors for advancing of technologies in future manufacturing process.

RECOMMENDATIONS:

1- We must know more about factors that determine changes and give new orientations in advanced technologies for manufacturing process.
2- To foment the best knowledge of principles of the organization among executives, professionals and workers, in the direction of reach mutual identification, alliances and compromises.
3- Recognize ethic principles of professionals in the organization, if you want to stimulate positive values.
4- Allow innovative change, this will be a valuable instrument for industrial plant development and motivate employees to surpass professional goals and objectives.
5- Impulse organization a professional ethic values as preventive function to avoid corruption and social deterioration.
6- Articulate professional ethic values to innovative functions in order to reach optimum industrial technological advance.

SUMMARY. - This investigation was performed in forty percent of multinational industrial plants in a regional sector at northeastern of Mexico and the academic system of ITR. We obtained the dimensions of innovation and the professional ethics and their interaction with technology in manufacturing process. It was possible to identify new tendencies in organizational conduct connected to vanguard technology.

The results, which are presented with inferential statistics along, factor tests, reliability, multidimensional scaling instruments and discriminant analysis of manufacturing process and administrative functions.

Recommendations are made about to solve problems between technology of manufacturing and business administration.

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Figure 1

F a c t o r   A n a l y s i s

Scale: Professional Ethic Values

VARIABLES	FACTORS I	II	III	COM
01 Self-compromise	.65			.67
19 Organizational Conscience	.95			.93
20 Organizational Responsibility	.93			.88
10 Professional Responsibility		.89		.79
12 Organizational Compromise		.88		.80
15 Identification with Organization		.71		.64
03 Professional Performance			.75	.78
05 Personal Veracity			.91	.84

FACTOR	EIGENVALUE	PCT	PCT ACCUM
I	3.47	43.4	43.4
II	1.74	21.8	65.1
III	1.10	13.8	78.9

Kaiser-Meyer-Olkin MSA = .72

Bartlett Test of Sphericity = 126.64 Significance= .0001

Reliability Analysis
Alpha = 0.76 Standardized item alpha = 0.71 Prob. = O.0001

Variance of the Scaled:
Stress = 0.07 RSQ = 0.96

Figure 2

F a c t o r   A n a l y s i s

Scale: Innovation

VARIABLES	FACTORS I	II	III	COM
30 Permissive changes	.73			.58
31 Preference to representative changes	.77			.74
32 Labor optimization in a change	.69			.56
33 Opportunity of changes		.67		.61
36 Negative impact of a change		.84		.81
38 Acceptation of negative impacts of changes		-.72		.63
34 Changes made for authorities			-.71	.60
37 Positive impact of a change			.69	.54

FACTOR	EIGENVALUE	PCT	PCT ACCUM
I	2.25	24.7	24.7
II	1.96	21.8	46.5
III	1.25	13.9	60.4

Kaiser-Meyer-Olkin MSA= .53
Bartlett Test of Sphericity = 64.94 Significance= .002

Reliability Analysis
Alpha = 0.55 Standardized item alpha = 0.53 Prob. = 0.001

Variance of the Scaled:
Stress = 0.11 RSQ = 0.85

Figure 3

Factor Analysis

Scale: Technology

VARIABLES	FACTORS I	II	III	COM
46 Computer Administration	.82			.90
47 Computer Acquisition (Raw material)	.94			.95
43 Computer Product Design		.83		.89
44 Computer Manufacturing & Assembly		.81		.86
45 Maintaining Services			.93	.99

FACTOR	EIGENVALUE	PCT	PCT ACCUM
I	3.33	66.6	66.6
II	.88	17.6	84.2
III	.37	7.5	91.7

Kaiser-Meyer-Olkin MSA = 0.76
Bartlett Test of Sphericity = 98.81
Significance = 0.0001

Reliability Analysis
Alpha = 0.87 Standardized item alpha = 0.88 Prob. = 0.002

Variance of the Scaled:
Stress = 0.10 RSQ = 0.99

Figure 4

Scale: Technology, Professional ethic values and Innovation.

F A C T O R A N A L Y S I S

VARIABLES	FACTORS I	II	III	COM
44 Computer Manufacturing & Assembly	.89			.84
43 Computer Product Design	.87			.77
46 Computer Administration	.84			.76
47 Computer Acquisitions & Raw material	.73			.67
45 Maintaining Services	.72			.53
31 Preference to representative changes		.84		.75
30 Permissive changes		.84		.79
10 Professional responsibility			.76	.58
20 Organizational responsibility			.70	.48

FACTOR	EIGENVALUE	PCT	PCT ACCUM
I	3.42	38.0	38.0
II	1.54	17.0	55.0
III	1.21	14.0	69.0

Kaiser-Meyer-Olkin MSA = 0.64

Bartlett Test of Sphericity = 125.91 Significance = 0.0001

Reliability analysis
Alpha = 0.76 Standardized item alpha = 0.71 Prob. = 0.0001

Variance of the Scaled:
Stress = 0.05 RSQ = 0.98

Figure 5

DISCRIMINANT ANALYSIS

Var 44 Computer manufacture Process & Assembly

Wilks' Lambda	Chi-Square	Significance	Eigenvalue	Canonical Corr
0.10	61.5	0.0002	3.31	0.88

CANONICAL DISCRIMINANT FUNCTIONS
(variables ordered by size of correlation within function)

	Func 1	Func 2	Func 3
Var 43 Computer Product Design	.59		
46 Computer Administration	.43		
47 Computer Acquisition & Raw mat	.41		
45 Maintaining Services		.50	
15 Identification with organization			.42
10 Professional responsibility			.29
20 Organizational Responsibility			.24

Percent of Predicted Group Membership. Cases correctly classified: 77.14 %

Figure 6

DISCRIMINANT ANALYSIS

Var 20 Organizational Responsibility

Wilks' Lambda	Chi-Square	Significance	Eigenvalue	Canonical Corr
0.08	68.96	0.0001	6.48	0.93

CANONICAL DISCRIMINANT FUNCTIONS
(variables ordered by size of correlation within function)

	Func 1	Func 2
Var 19 Organizational Conscience	.75	
44 Computer manufacturing Process		.53
10 Professional responsibility		.37
15 Identification with organization		.35
12 Organizational compromise		.30

Percent of Predicted Group Membership. Cases correctly classified: 97 %

Figure 7

DISCRIMINANT ANALYSIS

Var 10 Professional Responsibility

Wilks' Lambda	Chi-Square	Significance	Eigenvalue	Canonical Corr
0.21	44.38	0.0005	2.10	0.83

CANONICAL DISCRIMINANT FUNCTIONS
(variables ordered by size of correlation within function)

	Func 1	Func
Var 15 Identification with organization	.64	
47 Computer acquisition & raw material	- .14	
12 Organizational compromise		.63
44 Control manufacture process & assembly		.25

Percent of Predicted Group Membership. Cases correctly classified = 86 %

Figure 8

DISCRIMINANT ANALYSIS

Var 33 Opportunity of Changes

Wilks' Lambda	Chi-Square	Significance	Eigenvalue	Canonical Corr
0.09	62.99	0.001	2.39	0.84
0.31	30.62	0.05	1.03	0.71

CANONICAL DISCRIMINANT FUNCTIONS
(Variables ordered by size of correlation within function)

	Func 1	Func 2
Var 36 Negative impact of a change	.33	
47 Computer acquisition & raw material control	-.31	
43 Computer Product Design	-.27	
44 Computer Manufacture process & assembly	-.17	
31 Preference to representative Changes	-.16	
46 Computer administration		.41
42 Investment (million of Dollards)		.35

Box's M = 274.95 Significance = 0.0001

Percent of Predicted Group Membership. Cases correctly classified: 86 %

Figure 9

F a c t o r A n a l y s i s

Scale: Professional Ethic Values (Professors of ITR)

VARIABLES	FACTORS I	FACTORS II	COM
03- Professional performance	.95		.92
14- Organizational performance	.93		.87
08- Personal conscience	.93		.89
05- Personal veracity	.93		.89
04- Self-identification values	.92		.89
11- Professional loyalty	.89		.90
10- Professional responsibility	.88		.77
18- Identification with organization		.97	.95
07- Identification with standing norms		.95	.92

FACTOR	EIGENVALUE	PTC	PTC ACCUM
I	6.51	65.0	65.0
II	2.03	20.0	85.0

Kaiser-Meyer-Olkin MSA = .75
Bartlett Test of Sphericity = 422.48 Significance = 0.0001

Reliability Analysis
Alpha = 0.89 Standardized item alpha = 0.92 Prob. = 0.0001
Variance of the Scaled:
Stress = 0.06 RSQ = 0.99