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# Operational Model of Cascading Values and Professional Ethics in Organization : A Context for Spiritual Development of Employees

By Iraj Soltani & Reihaneh Bahrami Nejad Joneghani

*Islamic Azad University-Najafabad Branch, Isfahan, Iran*

**Abstract** - Compilation of vision, mission and strategies of organization causes systematic and directed movement of organization, but this movement without addressing business values and professional ethics will be spiritless and face serious challenges.

To have successful, dynamic, spirited and sustainable business ,it is needed that moral values constitute its basic foundations. Successful business requires at least two major factors: i.e. competitive strategy and excellent performance in professional ethics. Act upon professional ethics is the major foundation of developed employees and managers in organization. Doing tasks, activities and achieving indicators and goals in moral atmosphere causes relation improvement, confidence making, healthy competition, development of capabilities and happiness in organization. Moral and spirituality are considered as requirements of today business world. So , with regard to importance of professional ethics in business, in this paper the concepts of moral, professional ethics and spirituality have been explained and components and 8 stages of operational model of cascading values and professional ethics in different layers of organization have been presented.

**Keywords** : *Moral, professional ethics, organizational values, business, human resource development.*

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OPERATIONAL MODEL OF CASCADING VALUES AND PROFESSIONAL ETHICS IN ORGANIZATION A CONTEXT FOR SPIRITUAL DEVELOPMENT OF EMPLOYEES

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# Operational Model of Cascading Values and Professional Ethics in Organization : A Context for Spiritual Development of Employees

Iraj Soltani<sup>α</sup> & Reihaneh Bahrami Nejad Joneghani<sup>σ</sup>

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## I. THE CONCEPT OF MORAL AND PROFESSIONAL ETHICS

Leaders and employees of organization should be bound to accepted ethics in order to be success and show it in their tangible behaviors. Moral theory builds a system of codes and regulations that guides human in making decision about good and bad, right and wrong [1]. Moral means principles and standards that defines right and wrong conduct and behavior and shows their distinction. From theory aspect, moral is directed to the point that excellence be toward human strive. The extent of moral will be increased through increasing ability of human in controlling and mastering on nature and managing social structures.

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So , scope of moral along with increasing ability of human in controlling social and nature environment will be increased and expanded [2]. Managers and employees should practiced moral and turn it to behavior. Professional ethics require professionalism in organization. For reinforcing professional culture, development of ethical codes also will be a context for stronger identification and will provide a basis for developing competency model. Ethical codes can both be dominant on members relationship and between customers of organization. Professionalism can be defined as a feature of an individual or a group of employed individuals in a certain job that causes other confidence in desirable doing of their tasks [3].

In issues of professional ethics some people emphasize on ethic of jobs owners and neglect organizational ethics and ethical spiritualities. This approach can harm human resource development and causes organizations less pay attention to ethical audits in goal setting, decision making, procedures, relationships with customer, competitors, stock holders, and other interested [4]. To have ethical intelligence underpins professional ethics in leaders and managers.

Link and kale consider ethical intelligence as the ability of differentiating right and wrong that is adjustable to world principles . They consider ethical intelligence consisted of four factors including : honesty, responsibility, sympathy, and forgiveness. Managers equipped with ethical intelligence are characterized by following features :

1. Serving people and organization
2. Justice- oriented in decision and work
3. Honesty in speech and behavior
4. Tend to collective and team work [1].

## II. SPIRITUALITY AND PROFESSIONAL ETHICS IN ORGANIZATION

Spirituality is an attempt toward creating sensitivity to self, others, superior force (God), searching for what is needed for becoming human and achieving to the position of creating sensitivity to inter and intra personal relationship in work life in order to reach personal development and human

excellence. Spirituality has two dimensions : internal (spiritual and psychological ) and external (biologic and social) [5].

Spirituality at work has three basic elements: i.e. internal, external and combined which divide them onto four different but related result :

1. Leadership and organization : interested in employees, respect other, Actions adjustment, obvious alertness.
2. Employees: masterly skill and knowledge progression, adjustability, and continuous performance.
3. External quality : adjustment, environmental awareness and spirituality feeling toward society.
4. Mutual trust and common responsibilities for common interests.

Internal aspect of spirituality at work is related to essence of your commitment to your value system. Virtually all of the people have a guiding desire to creating difference also they have internal qualities such as honesty, moral, belief, respect, and trust in order to prevent impact of internal factors.

Behavior (spirituality) doesn't shape and their secrets are in their severity. Expectation has impact on severity of these factors. These expectations are the result of our knowledge up to date and in other words are our cognitive processes. So , it is needed cognitive processes to be controlled [6].

External aspect of spirituality at work is emphasized more through statements such as "work is a spiritual journey for many of us". instances such as creativity, variety, calmness and coordination are external manifestations of spirituality at work. Your external world is the mirror image of your internal world. In other words, whatever is out of you, is the reflection of what there is within you. Your personality and character greatly determine quality of your relationship with other. Your attitude and reaction of others to you is greatly specified with regard to belief and expectation you have about yourself. The level of your inner needs and willing determines success of your outer world [7].

Combined aspect of work spirituality has two features:

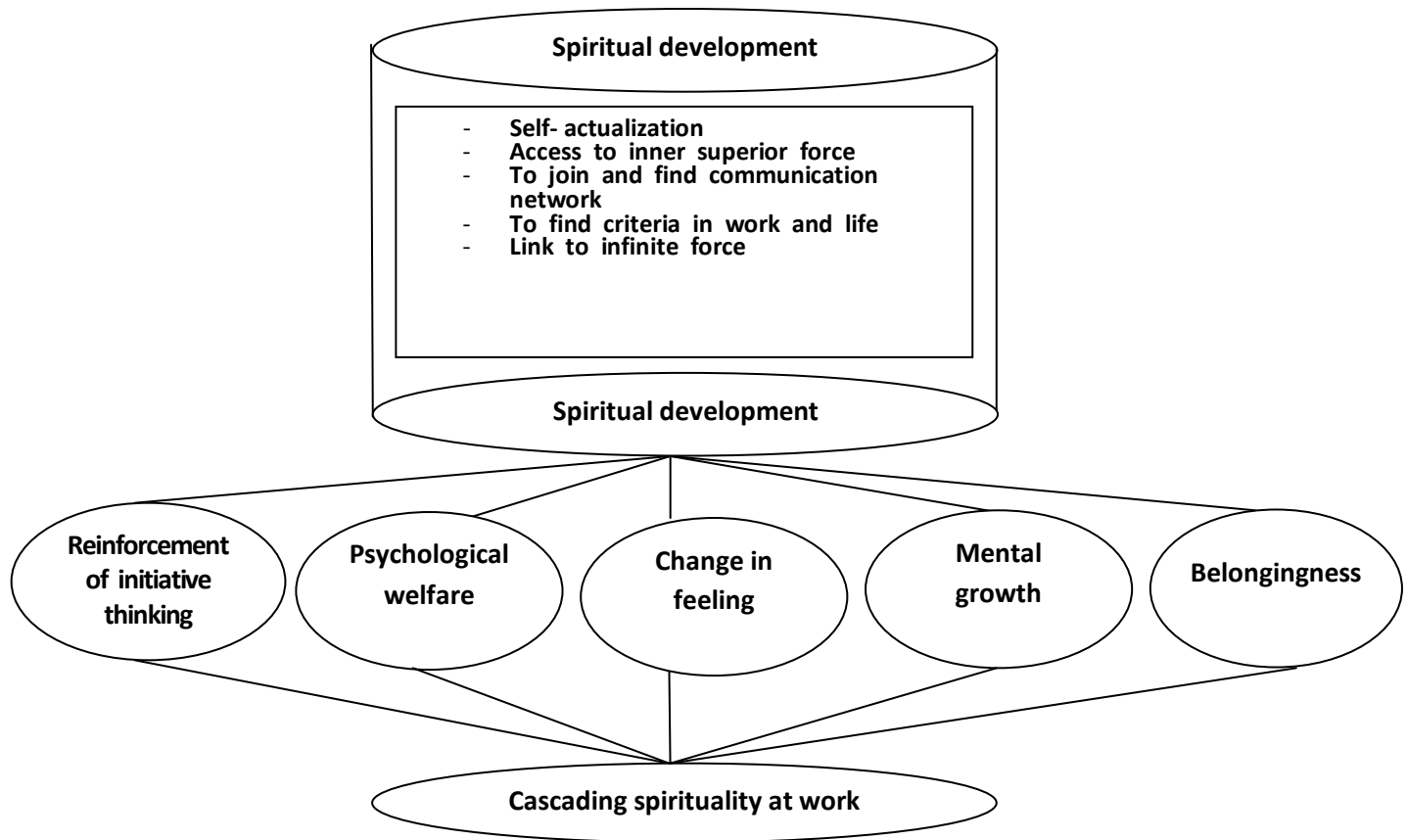
1. Awareness of individuals about existence of spirituality at work is increased.
2. This awareness changes the way of working with others at work. Some combined aspects of spirituality at work include :

Perception, honesty, team orientation and acceptance [8]. Cultivation of spirituality at work will have following results:

1. Belief in God
2. To gain calmness and as a result crating a context for thinking about life.

3. Special attention to human and listening to colleagues sayings that improves cooperation.
4. True commitment to improve relationship among human which causes peace and integration in the world.
5. Improvement of human and their surrounding environment [7].

One of the important contexts for establishing spirituality at work is spiritual development of employees and managers. Spiritual development is a process during which psychological welfare of individuals is enhanced and its root can be found in intuitive thinking. Growth and development of spirituality in human cause mental growth and actualizing individual needs. Belonging and self actualization, and moral of employees at/ and out of word will be reinforced. Generally roots of employees spiritual development can be shown in pattern No1.



*Pattern No1* : roots of cascading spirituality at work

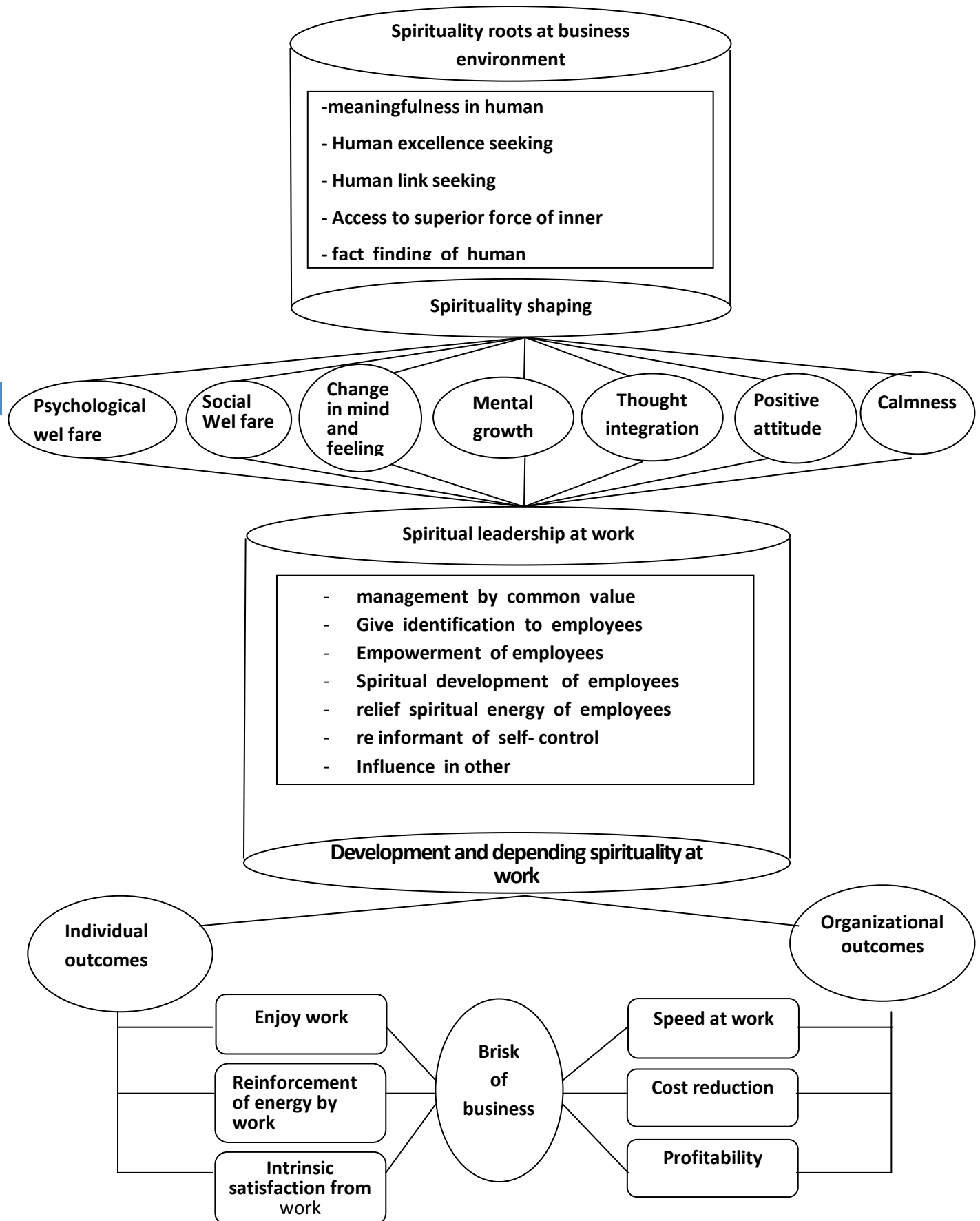
With regard to importance of spirituality at work, organizational leaders have a major role in reinforcing and developing spirituality at work. So leaders should play the role of spiritual leader too.

Max De Peri considers spiritual leadership as models of leadership serving, employees involvement and empowerment. Spiritual leaders show belief, enthusiasm and results of their work. John Wesley considers these three factors as major feature and symbol of spiritual leadership [9]. In spiritual leadership model, missions and values shape a company with professional ethics, even beyond this, personal and professional life of employees also shape based on spirituality. spiritual leaders exile moral identification of their followers and induce deep commitment in them, and join internal and external moral in social relationship of employees, generally, spiritual leadership is consisted of following elements :

- Common spiritual values
- Future vision
- Common purpose
- Empower other
- Influence in other
- Insight

- Serving
- Change in self and other [8].

Domination of spirituality and moral in business atmosphere can be shown in pattern 2.



*Pattern No 2 : Domination of spirituality and moral in business atmospher*



### III. STAGES OF CASCADING VALUE AND PROFESSIONAL ETHICS IN ORGANIZATION

Organizational value define what are important for organization and business should be followed by considering them. Business value is manifested in professional ethics frame. Compilation of moral charter, values statement and such concepts are valuable but should be flow in different layers of organization in the form of practical behaviors and be integrated in individual work life. One of the challenges face today organization is weakness of following organizational values. The important issue in strategic management process is strategy implementation.

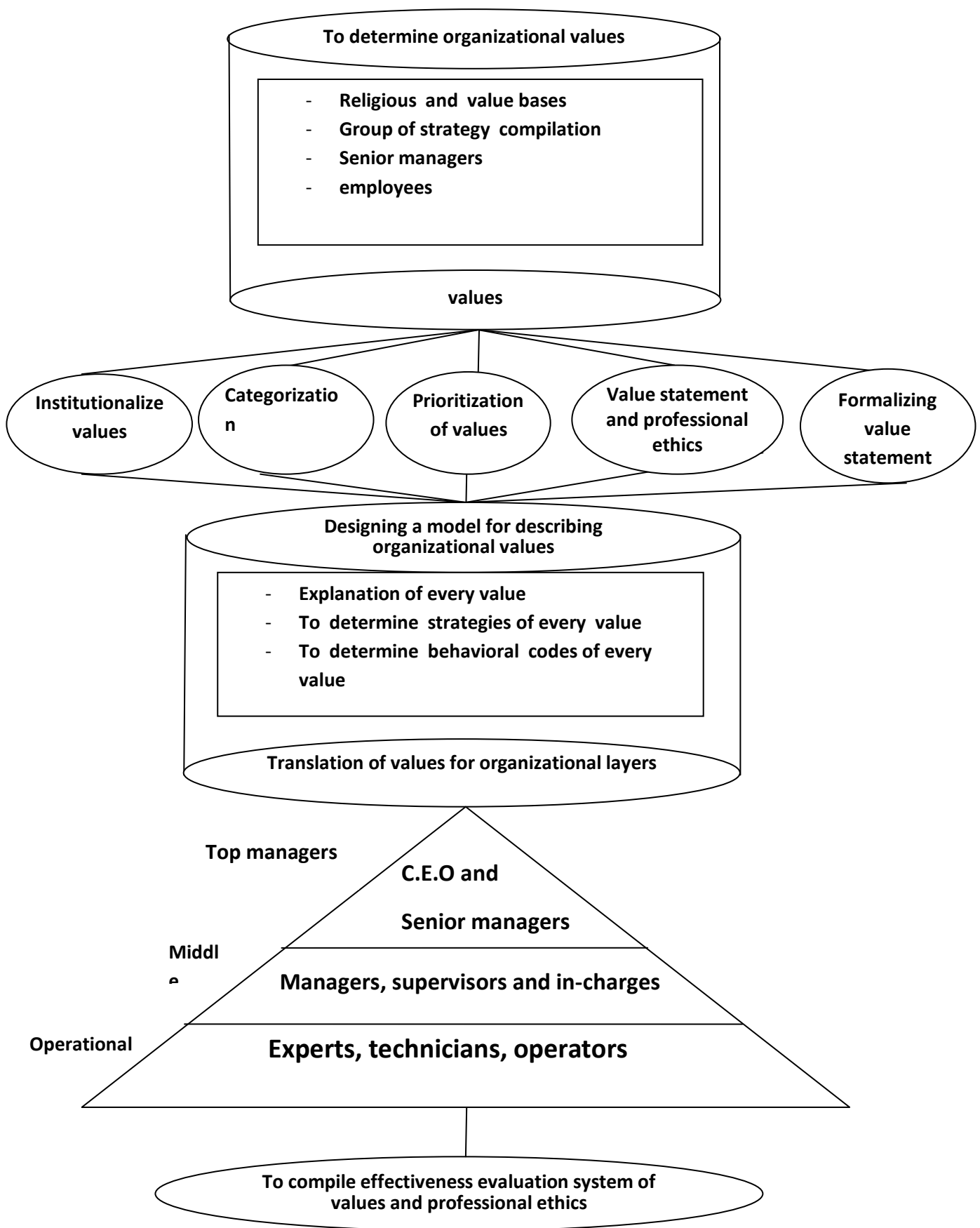
Fortune journal wrote :%70 of failure of senior managers in U.S.A is not related to their weakness in formulating strategy but it is due to their failure in strategy implementation barriers such as not transferring strategies, lack of employees alignment, lack of management commitment and not allocating resource based on strategies have been mentioned [10]. So, it is needed for success and sustainability, strategies, values and professional ethical be implemented in business and be observed in employees behaviors.

To create fundamental change in behavior based on values requires seeing, feeling and changing. In seeing stage employees become sensitive to values and feeling causes motivating of positive feeling or reduction of negative feeling and increasing emergency sense, hopefulness and belief and changing means new feeling causes change in behavior. Good exploitation of seeing, feeling and changing is a kind of smartness not abnormal neither deceptive. And sometimes this process changes behavior of individual and drives them toward seeing, feeling and changing [11]. This process causes growing good habits. Habits are not instinctual, they are reactive and achievable. To change habit based on organizational values taking following steps is recommended :

1. To list behaviors and habits that are not based on values
2. Root finding
3. To find accelerating factors
4. To choose a good behavior for substituting irrelevant habit
5. Rehearsal of relevant habit [12].

To cascade values and ethical in organization and turning it to operational behaviors it is possible to get help pattern No 3.





*Pattern No 3* : stages and components of cascading organizational value and professional ethics in business.

#### IV. STAGES AND COMPONENTS OF CASCADING VALUES AND PROFESSIONAL ETHICS IN ORGANIZATION

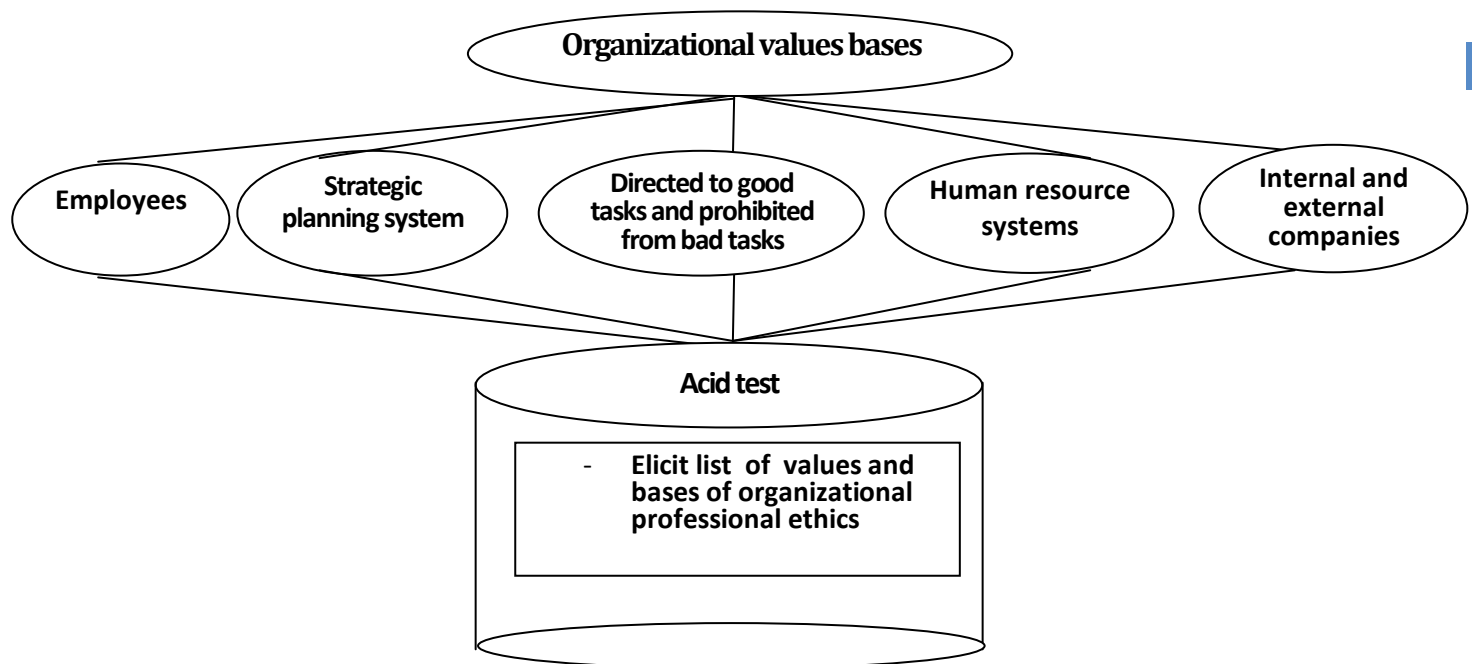
##### a) *Determination of organizational values and professional ethics.*

In this stage it is needed to specify required values for supporting business , to do this following steps should be passed through :

1. survey organizational values and professional ethics bases from the point of employee view in different levels of two following categories.
  - Present values
  - Required and desirable values

2. examining compiled ethical and organizational values in organizational strategic planning system.
3. attention to specified values in council of direct to good tasks and prohibit from bad tasks.
4. examining values and professional ethics bases emphasized by human resource system.
5. examining organizational and ethical values of successful internal and external companies.
6. acid test of values and professional ethics bases with religious and value bases.

Generally, organizational values resulted from mentioned bases can elicit from pattern No4.



*Pattern No 4 :* bases of eliciting organizational values

##### b) *finalizing values list and professional ethics bases In this stage list of values and moral bases derived from different resources should be provided, refined and finalized.*

In this regard form No1- in which an example of values and mentioned bases specified, is presented.

*Form No.1 :* Sample list of organizational values

row	Components of organizational values and professional ethics	Reference				
		A	B	C	D	E
1	Loyalty and organizational involvement					✓
2	Honesty				✓	
3	Work conscience				✓	
4	Organizational and work discipline				✓	

5	Learning and teaching			✓		
6	Punctuality		✓			
7	Respect customer		✓			
8	Team work		✓			
9	Participation			✓		
10	Sacrifice			✓		
11	Mutual trust				✓	
12	Customized				✓	
13	Creativity and innovation				✓	
14	Profession seeking				✓	
15	Total attempt			✓		
16	Enthusiasm			✓		
17	Confidentiality	✓				
18	Respect experienced	✓				
19	Human relations	✓				
20	Accountability					✓
21	Prefer organizational interests over individual interest					✓

c) *Categorization of values and professional ethics bases*

After finalizing these values, they should be categorized, to categorize them it is possible to act as followings:

- To determine business values
- To determine moral values
- To determine combined values (business and moral)
- To determine job values
- To determine values related to customers
- To determine values related to employees
- To determine values related to management
- To determine social values

d) *Prioritization of values and professional ethics*

To plan better for cascading values and to focus on pivotal values, values and professional ethics bases should be prioritized.

Following stages should be passed through for prioritizing:

1. to determine evaluation standards which in this regard following instances can be referred:
  - Help of value in business brisk
  - Help of value in spiritual development of employees

- Strategic importance of organizational value
  - Simply turning value to behavioral codes
  - Coordination of value with company strategies
2. Provide scoring system for evaluating values
  3. Provide matrix of evaluating values according to form2.
  4. Evaluation by managers and employees
  5. Value prioritization

*Form No. 2 : Matrix of evaluating organizational values for prioritizing*

Row.	Title of value or professional ethics	Standards of value evaluation																								
		Standard 1					Standard 2					Standard 3					Standard 4					Standard 5				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	A																									
2	B																									
3	C																									
4	D																									
5	E																									

*e) Provide value statement and moral charter of organization*

After evaluating and prioritizing organizational values, the most important value and those which have the highest points should be selected as pivotal value and value statement of organization is compiled and through cascading it in organizational strategic planning system, be addressed.

of words and general statement cause ambiguity and tangle and common subjectivity faces difficulties. Description and explanation of organization values increase common subjectivity. To create common language understanding related to values, titles of values should be recorded and described according to form No. 3 and then points and pivotal key of every value should be elicited.

*f) Description of organizational values and professional ethics bases*

In this stage, values and moral bases in terms of dimension's quality, content should be described and explained. To offer values and moral bases in the frame

*Form No. 3 : explanation of values and professional ethics bases in organization*

Row.	Titles of organizational values and professional ethics bases	Description and explanation of value	Elicit key points
1	A		
2	B		
3	C		

*g) Translation and cascading organizational values and professional ethics bases*

Translation and flowing values and ethics are among the most important stages related to organizational values, because legalization of values is depended on flowing them and act. Upon them in organization. To translate and flow values, following stages should be passed through:

1. to turn values to behaviors following steps should be taken:
  - Definition of each value
  - To determine strategies of every value
  - To determine expected behaviors of every value
  - To determine required practices for practicing values
  - To do aforesaid practices, it is possible to use form No.4.

*Form No. 4 : the way of turning values to expected behaviors*

Row.	Components of values	Related strategies	Expected behaviors (behavioral codes)	Action plan for practicing values
1	(sample) Team work	(sample) - Encouragement team work - Structure making for team work	(sample) - On time participation in sessions - Define improvement projects - Problem solving through instruction	- Group procedures - Link teamwork to compensation system
2				
3				

2. Translation of values

Values should be translated in an understandable language for different layers, in this section following actions help in better and depth cascading.

- To specify target groups for cascading organization values

- To determine values behaviors indicators relevant to each organizational layer
- To determine tools, means and transfer of cascading values in different layers.

Aforesaid stages can be implemented

according to forms No. 5 and 6:

*Form No. 5 : the way and translation of organizational values*

Row.	Target groups for cascading values	To determine behavioral indicators	To determine tools and means for transferring values
1	Deputies	Pivotal values	Sessions, seminars, SMS, brochure
2	Senior and middle managers	Pivotal values and key axial	Sessions, seminars, goal boards
3	Heads and general foremen	Values pivotal key and plans	Goal board, training seminar, goal booklets management automation
4	Shift supervisors	Plans related to values and activities	Newsletter – total booklets of organization values Training seminars
5	Experts and technicians	Activities and behaviors indicators of values	Website, training seminars, management automation
6	Operators of production repair and staff	Defined and simple behavioral indicators	Special printed cards sessions - Printing values in newsletter - Information boards

*Form No. 6 : sample of value translations to operational behaviors in operator layer of organization*

Values	Target group	Behaviors
Development of participation and organizational communication	Operators	- Provide more suggestions - Define more QC,s - Cooperation between production and repair
Excellence and continuous improvement	Operators	- Review work methods - Omission of unnecessary work - Provide suggestion for improving work



Safe work	Operators	<ul style="list-style-type: none"> <li>- Follow safety procedures of equipments</li> <li>- Attend safety training courses</li> <li>- To fill forms related to near miss</li> <li>- Complete using of individual</li> <li>- Considering safety of equipment during repair and fixation</li> </ul>
Respect customers and colleges	Operators	<ul style="list-style-type: none"> <li>- Respect each other</li> <li>- To prevent using irrelevant speech in workshop</li> <li>- Report full condition to next shift</li> <li>- Respect employees of contractors</li> <li>- Cooperation during repair and fixation</li> </ul>

*h) to determine effectiveness of cascading organizational values*

After cascading values and bases of ethics, it is needed that the extent of transferring values and its impact on employees and business atmosphere be determined. To assess the extent of values effectiveness and professional ethics following actions is suggested:

1. To specify target groups
  2. To determine methods of getting feedback: in this regard it is possible to use questionnaire, interview, selection of target groups and observation.
  3. To determine measures related to measuring effectiveness of values
- In this regard it is possible to use form No.7.

*Form No. 7 : measures related to determining*

Row.	Components and measures	Very low ← very high									
		1	2	3	4	5	6	7	8	9	10
1	Improvement of business atmosphere										
2	Improvement relationship at level of organization and employees										
3	Reinforcement of self – control										
4	Reinforcement of organizational trust										
5	Reinforcement of energy due to domination of values										
6	Reinforcement of internal satisfaction of work										
7	Improvement of psychological climate of work										
8	Improvement of organizational integration										
9	Reinforcement of positive attitude										
10	State of internal calmness										
11	State of calmness of work										
12	Forgiveness										
13	Tolerance each other										
14	Increasing saving behaviors										
15	Development of spirituality in employees										

## V. CONCLUSION

Brisk of business climate requires dynamic and smart plans and activities. Profit ability in business is an important principle for interested in organization, but survival and profitability require moral management of business. Domination of ethical and organizational values cause reinforcing mutual respect, self-control, meaning fullness, organizational and individual identification, belonging, conscience, honesty in speech and conduct in organization and individuals enjoy work and organization. To make organizational values base of all employees work, it is needed that values and ethics be specified and turned to behavioral codes and be flown indifferent layers and its impact be assessed. In

this paper an operational model for cascading organizational values was presented.

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# Chronometric Attitudes and Administrative Tasks' Performance of Principals in Lagos State Secondary Schools, Nigeria

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**Abstract** - The purpose of this study was to establish if there is any significant relationship between Principals' time management as an independent variable and administrative tasks' performance as the dependent variables in Lagos State Junior and Senior Secondary schools. The study divides administrative tasks into five broad headings, namely: school personnel task, school instructional supervisory task, school business task, school plant maintenance task and school public relations task. Two instruments were used for this study titled, Time Management and School Administrative Tasks' Performance Questionnaire I (TMSATPQ I for Principals), the second instrument, Time Management School Administrative Tasks Performance Questionnaire II (TMSATPQ II, for teachers). 446 Principals and two thousand, two hundred and thirty Teachers (2230) at five teachers (5) per school. The Sampling cut across the six education districts of Lagos State. The instruments were validated and found reliable at  $r = 0.83$  and  $r = 0.78$  respectively. It was however discovered that there is no significant relationship among principals' time management, school personnel task, experience and qualification. While, principals' time management has not significantly affected the instructional supervisory task, school business task, experience and qualification put together. Also, there is no significant differences between principals' who are cyclic in task performance and principals' who linear in time performance. Recommendations were made based on these findings, some of which are that conscious effort should be made to identify where, how, when, and why time is wasted and eliminate them. Principals are also encourage to set deadlines and use a day runner complete with a check list to evaluate at the end of each day the level of task completion and strategize for days ahead in meeting the set deadlines and that principals should use the principles and practices of delegation of responsibility and the committee system maximally.

**Keywords** : *Chronometric attitudes, Administrative skills, Plant maintenance task, Mechanistic activities, Pickle Jar Theory, Eponymous scale, Insomnia.*

**GJMBR-A Classification:** FOR Code: 150305 JEL Code: JEL Code: M12, M16



*Strictly as per the compliance and regulations of:*



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## 1. INTRODUCTION

Secondary school level is the bridge between the primary and tertiary levels. Thus, quality management of secondary schools is already a global phenomenon. The management of Junior Secondary Schools (JSS) and Senior Secondary Schools (SSS) in the hands of qualified and experienced

teachers called Principal has generated heated debates over the years. The update of the history of post-primary education in Lagos State revealed that in 1968, there were 42 secondary schools and five teacher grade II colleges. This figure rose to 47 secondary schools in 1972 and 53 secondary schools in 1974. In the wake of the Second Republic in 1979, Secondary schools increased in number to 326 as a result of free education programme at all levels launched by the banned Unity Party of Nigeria by the five " LOBOO " states – Lagos, Ogun, Bendel, Ondo and Oyo, states.

There was a significant increase in the number of secondary schools from 79 in 1978 to 326 in 1979 and 347 secondary schools in 1984. This indicates that an additional 268 secondary schools were established by the civilian government led by Alhaji Lateef Kayode Jakande to absorb pupils from primary schools who were on 100% transition to secondary schools due to the free education programme. There was a marginal decrease in the number of Secondary schools from 347 in 1984 to 345 in 1992 and then a marginal increase to 365 in 1998.

Thus, the various military regimes in Lagos state from 1984 continued the free education programme of the erstwhile civilian government and also embarked on the establishment of schools with an increase in the number of secondary schools from 327 in 1985 to 365 secondary schools in 1998.

In 1999, a new civilian government, headed by Senator Bola Ahmed Tinubu, embarked on new reforms and face lift of the free education programme in Lagos state. In September 2001, the Lagos state government handed the mission and private schools taken over in 1976 to their former owners and split the schools into junior and senior secondary schools, with different headship (Principals), and teachers redeployed to either Junior Secondary Schools or Senior Secondary Schools. Over the years, education has become the largest social service. It has consistently taken the lion's share of the Lagos State annual budget since secondary education, is tuition-free in the state. The Lagos State education year book of 1997 reveals that government put in place cost sharing measures such as the charging of Education Development Levy (EDL); and provision of guidelines for participation of parents, communities, bodies and many others, in the funding of education. In

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spite of this, the constant massive influx of people from other Nigerian states into Lagos State has continued to put a large financial burden on the state in respect to funding secondary education.

The general opinion is that 21st century school managers must become agile and flexible to help their schools develop and sustain an advantage in an increasingly competitive globalized world. A number of forces are reshaping the nature of managing within organizations. Organization such as secondary school that has recognized these forces are working to channel their managerial talents to accomplish goals by using their knowledge about each of six major forces at work:

(i) Power (ii) Globalism (iii) Cultural diverse (iv) Rapidity of change (v) Psychological contract and (vi) Technology

As a corollary to the above, Ivancevich, Konopaske, and Matteson (2011) note that highly effective and productive organizations in different industries seems to possess and cultivate some similar characteristics. Hence, Principals as secondary school managers can lead the way to higher levels of effectiveness by:

1. Providing opportunities for training and continuous learning
2. Sharing information with employees
3. Encouraging cross-development partnership
4. Linking compensation to performance
5. Avoiding layoffs
6. Being a supportive role model
7. Respecting the differences across employees
8. Being a good listener.

#### a) *Principal and Administrative Skills*

A principal in his leadership position as the school head may be gifted in good leadership attributes. In leading his team, he may be naturally endowed with the charisma to command respect and authority, in which case, compliance to his directives by the followership is without hesitation.

Ngwu (2006) avers that a secondary school, being a formal and social organization is special in that it is charged with specific objectives, general aims and the broad goals itemized above, that must be measured periodically.

However, a principal's possession of administrative skills may not translate positively if the enabling environment for its deployment and application is lacking. This brings one to the issue of contradictions in the Nigerian school system. These contradictions include that:

- (a). secondary schools comprise children of the highly placed and children of the lowly underlings of the society with varying background;
- (b). students are expected to work together harmoniously, yet they may not like each other or even know each other before;

- (c). students are urged to cooperate, yet they often work in individual or competitive situations;
- (d). students are encouraged to be independent, yet they are expected to conform to the teacher's dictate;
- (e). students do not come together voluntarily. Talk about attention, they are a captive audience, required to work on tasks they have not selected and in which they may have little interest;
- (f). classroom groups are sometimes formed arbitrarily without considering age and ability. Students do not choose their peer or their teacher, yet they are expected to cooperate. (Akinade, 1993).

In order to alleviate these contradictions so that all forms of alienation are re-directed at gaining the cooperation of students, the principal, in conjunction with all stakeholders, and through them should:

- (i). establish positive relationship with students;
- (ii). foster learner motivation to learn;
- (iii). share responsibility with learner;
- (iv). use reward to encourage and reinforce appropriate behaviour;
- (v). use punishment to deter and correct misbehaviour. (Ajayi, 1998)

To this end, there are rules, regulations and code of conduct for staff and students. There is a scheduled time-table of activities, an administrative hierarchy and a chain of command in a bureaucratic setting. The expectations itemized above are areas of interest in this study, especially the issue of time; a very scarce commodity which, once lost, may not be easy to regain. Any attempt to regain lost time is to occupy and use the time allotted to other school activities. For instance, there is a time-table for teaching, a time to conduct the school assembly and a break time for recess.

Thus, Abari (2005) opines that the day to day running of a secondary school is a matter of routine. These are essentially mechanistic activities. The principal or his assignee is right there on the spot to implement government policies, applying management theories to real life situations. He has to utilize available resources to achieve optimal results. To that extent, he is the chief executive and accounting officer, a law officer, a bio-mechanic and health officer, an aesthetician, a judicial officer, an agricultural officer and environmentalist, a dietician, et-cetera in his/her school.

He has to carry out curriculum and instructional supervision and undertake routine evaluation of the quality of teaching and the amount of learning that is taking place. Staff welfare and general personnel services are essential to encourage teachers in the commitment that will enhance job performance. Furthermore, the principal has public relations functions of liaising between the school and the immediate community in which the school is located and which the school serves.



On the issue of accountability to student services, the principal is to ensure that all students, in spite of their accident of birth, religion, social background and ethnicity, participate fully and take full advantage of the educational opportunities available. There is a need for the principal to give evidence to other stakeholders that certain obligations have been fulfilled. The principal must guarantee that all students, without respect to disparity in parental income or social class, acquire secondary school skills needed upon a successful completion of secondary education, or, the principal will give an explanation for its not being so and why not. The principal takes charge of all financial transactions from school budgeting, through disbursement, self auditing and other financial transactions.

Finally, maintenance and repair of school plant to ensure longevity and optimal performance is an essential administrative function of a principal. Re-order levels of consumable plant, routine maintenance and servicing of non consumable plant and refurbishing of physical plant to ensure a higher state of functionality and the aesthetics of school environment are still the functions of the principal. In the face of all these, and, given the time available to function, how well the principal manage and administer the school to achieve its goals and objectives within limited time and space is cardinal to this study.

Al-khaliva and Thompson (2005) opine that it is being disputed that principals spend considerable time attending more to matters of urgent, non-routine trivialities and incidentals, to the detriment of routine matters that are necessary, important and procreative in schools. These views are in agreement that routine administrative task on personnel matters, instructional supervision and school businesses are best handled by the transactional principal. However, the principal may transfer to a standing committee or an interim committee specially set up to perform such a task. This is in congruence with the submission of Kolo (2006) cited in Ngwu (2007) that school plant maintenance task require a measure of expertise and professionalism. Thus, their performance or execution should be a matter of routine maintenance and refurbishment for physical and motorized plant. Re-order levels are desirable for consumable plant to avoid the 'out of stock' syndrome. Periodic servicing and repairs are recommended for electrical and electronic appliances for premium performance and longevity. These must be carried out periodically and is all about proper timing.

#### *b) Theoretical Framework*

The theoretical framework of this study is anchored on Maslow's (1954) time management theory known as the 'Pickle Jar Theory' of time management. This time management theory is really about prioritization. One should focus on the big stuff and the smaller entities are sorted out in the process of dealing with the big ones.

The above time management theory is corroborated by Likert (1960), using his eponymous scale to identify four time management systems which he calls the 'Linking Pin Theory'. The theory states that when the individual time of all role actors in an organization are pooled together, such that every member knows what every other member is doing at any given time, a group time is formed. That, a participative time management system such as this enhances less supervision and higher productivity. Time is saved when information and communication is free - flowing between the leader and the subordinates. When the leader's time is synchronized into the group time and vis-à-vis, a higher sense of loyalties, motivation, trust, belongingness, collegiality, and achievement drive is greatly enhanced. Likert concludes that employee centred time management is more productive than management centred time because time supervision is minimal when it is employee centred and leads to higher commitment on the part of the followership to impress and not to disappoint the leadership.

Finally, task prioritization and categorization is used as a time-saving administrative strategy, which Covey (1990), Allen (2001), Fiore (2006) and Secunda (1999) who rank - ordered in different studies and which can be summarized as follows:

- A. Tasks that are perceived as being urgent and important
- B. Tasks that are perceived as being important but not urgent.
- C. Tasks that are perceived as being urgent but not important.
- D. Tasks that are perceived as neither urgent nor important.

Therefore, the importance of a school administrative task may take precedence over the urgency of another task with both requiring the wisdom of the principal in his categorization of a task as either being import or urgent or both. Abari (2005) developed a paradigm on the symbiosis of official time management and personnel administrative task performance of principals. He avers that efficient time management translates into ample opportunity in deploying school personnel into various areas of school need. Such school personnel resources according to Abari include learners, teachers, parents, non-teaching staff and other stakeholders that will contribute to the smooth running of an educational enterprise. He recommends ad-hoc or standing committees as time saving devices drawn from the various school personnel itemized above to take decisions and perform personnel task on behalf of the principal. This is expected to fast-track action which hitherto would have been trapped while pending the principal's attention. Thus, personnel commitment and loyalty is encouraged when school personnel see themselves as work with the principal and not working for the principal.



As it would be expected, a lackadaisical attitude to time management by an unassuming principal in dealing with the five basic core routine administrative tasks discussed above will translate to incompetence and inefficiency. Whereas, every task must be performed within its own time, no excuse is acceptable for non-performance of a task within its own time and space.

Private time on the other hand which is expended on child/ward parenting, community/neighbourhood relations, extended family issues, social engagements, domestic chores, private studies/self development and leisure/recreational activities amongst others must not be allowed to be an anathema to the lofty ideals of administrative task performance. Time as an entity is the same for all and sundry in equal measure. The rich does not have more of it than the poor. Time is the same for the urban and rural dweller. The strongest and the weakest among men have equal time at their disposal. The best principal and the not too good principal are not different in their allocation of time. However, in all of the comparisons made above, it is how each role actor deploys his time that makes a difference. All principals are confronted with the same routine administrative task each day, but, how they execute each task is a function of how best they can manage the time available. Official and private task must be prioritized to avoid a clash of interest. It may be argued that there is no dichotomy between official and private time, but because time, whether official or private is at the mercy of the principal who must attend to the private programmes itemized above, we must of necessity dichotomize official and private task in favour of official activities that may not wait and must be promptly attended to. But, because the school is a formal system which operates like a chain in which all activities are interdependent and may be affected by its weakest and apparently least significant point of activity, prompt timing is of paramount importance.

In Existentialism, time is considered fundamental to the question of being. In particular, the philosophers, Martin and Heidegger cited in Barnett (1998) and cited in Bergreen (2003), believed that time was neither a real homogeneous medium nor a mental construct, but possess what they referred to as duration. Duration, in Bergeson's view, was creativity and memory as an essential component of reality.

#### c) *Statement of the Problem*

According to Mohammed (2005), it is observed that, in the lamentations of secondary school principals, who make such comments as:

...this principalship position is highly demanding. Official work has to be taken home, sometime working through the night and having to receive and make phone calls at night. Insomnia is taking its toll.

No weekends, no vacation. There is no time for rest, no time to recreate, no time for good diet, just any meal will do. The responsibilities of a principal are not time-friendly. This leadership position is stressful (p.31).

These and other lamentations *...ad infinitum* constitute a statement of the problem which this study intends to investigate empirically. Statements such as those above signify a probable suffering from a lack of both private and official time management. Time is almost always too short. What is lacking is self management on the part of principals. Procrastination is the habit of leaving until later what can be done immediately. Too many papers lie about everywhere in the office. Many of the papers are obsolete. But, unknown to the principal, when an office appears too to be busy, it means that too many things are left unattended to. Whereas, time should be a servant to be created and deployed, most principals see time as a master that controls their routine administrative functions.

The problem then arises as to whether time really is a master when in fact it should be a servant, a creation of the principal and to be deployed at his whims and caprices for undertaking the tasks that are necessary for the achievement of secondary school objectives as spelt out in the National Policy on Education. (Federal Republic of Nigeria, 2004). Time management is affected by school location, school size, transportation, staff strength, mode of recruitment, funding, work specialization/departmentalization and other variables that will be discussed shortly.

The purpose of this study also includes finding out how capricious principals' are between events stipulated on the school time table and events not planned for but must be attended to for the avoidance of chromomeric anarchy. This study will also like to examine whether Lagos State principals begin and complete a task before embarking on another task or whether they take on two or more tasks at a time going back and forth from one task to another until completion is reached on all fronts.

#### d) *Research Questions*

The following questions are used as a guide to the study:

- i. Is there any significant relationship among principals time management, personnel task, qualification and experience?
- ii. Is there any significant effect of principals' time management on a combination of instructional supervisory task, school business task, experience and qualification?
- iii. Are Lagos State Secondary School Principals more cyclic than linear in administrative task performance?

### e) Research Hypotheses

The following research hypotheses were derived from the research questions as a guide to the study:

- There is no significant relationship among principals' time management, personnel task, qualification and experience.
- There is no significant effect of principals' time management on a combination of instructional supervisory task, school business task, qualification and experience.
- There is no significant difference between cyclic and linear principals in their approach to administrative tasks' performance.

This study is delimited to junior and senior secondary schools belonging to and financed by the Lagos State Government.

## II. METHODOLOGY

The research design was ex post-facto in that the study investigated principals' official time management, separately, and its effect on administrative tasks' performance, both had taken place and cannot be manipulated as variables for the study.

The study population is all Principals and teachers of both Junior and Senior Secondary schools belonging to the Lagos State Government.

### a) Sample and Sampling Techniques

The sampling cut across the six Education Districts of Lagos State. Four Hundred and Forty Six Principals (446) out of a population of Six Hundred and Twenty (620) principals in Lagos State junior and senior secondary and Two Thousand Three Hundred and thirty teachers (2330) who returned a duly completed questionnaire out of stratified sample.

### b) Instrumentation

For data gathering, there are two questionnaires for the study. The first was for principals': Time Management and School Administrative Tasks' Performance Questionnaire I (TMSATPQ I), this is divided into two sections A and B. Section A of the instrument elicited personal bio-data of respondents, sub-titled A1 – A7. The second section was labelled B1 – B31 as it consists of 31 items and elicited information on principals' school administrative task performance in the area of school personnel, instructional supervision, school business, school plant maintenance and public relations.

The second instrument, Time Management School Administrative Tasks Performance Questionnaire II (TMSATPQ II), for teachers also has sections A and B. Section A contains personal bio-data items labelled A1 – A6. Section B contains twenty-seven statements/items labelled B1–B27 which elicited information on teachers' perception of his/her principal's attitude in routine administrative task performance in the area of school personnel, instructional supervision, school business, school plant maintenance and human/public relations. Before administration, the questionnaire were validated and found reliable at  $r = 0.81$ . The statistical tool applied were inferential statistics, Chi-Square and ANOVA were employed to test the hypotheses, the level of significance used on the study was the 0.05 alpha.

## III. RESULTS

H<sub>1</sub> There is no significant relationship among principals' time management, school personnel task performance, experience and qualification.

*Table 1 : Chi-Square Summary Testing if There is any Significant Relationship Among Time Management, School Personnel Task Performance, Experience and Qualification*

Time management	School personnel task/experience and qualification			Total	$\chi^2$ Cal	$\chi^2$ Tab	df	$\alpha$
Time consciousness	64 (236.0) (72.6)	59 (166.3)	69 (72.6)	192	8.49	9.49	4	0.05
Time unconsciousness	430 (236.0)	328 (166.3)	218 (76.6)	976				
Laissez-faire	444 (236.0)	112 (116.3)	108 (22.6)	664				
Total	938	499	395	1832				

Table 1 shows that the  $\chi^2_{cal}$  value of 8.49 is less than the  $\chi^2_{tab}$  value of 9.49. The hypothesis that states that there is no significant relationship among principals' time management, school personnel task, experience and qualification. Therefore, the hypothesis is accepted.

H<sub>2</sub> There is no significant effect of principals' time management on a combination of instructional supervisory task, school business task, experience and qualification.

**Table 2 :** ANOVA Summary Testing the Effect of Time Management on a Combination of Instructional Supervisory Task, School Business Task, Experience and Qualification

Time management	Sum of squares	Mean square	Df	F	Sig
Between groups	3.489	0.291	12	0.873	0.575
Within group	161.881	0.333	486		
Total	165.317	0.626	498		

Table 2 shows that the f-ratio value of 0.873 was significant. It implies that principals' time management has not significantly affected the instructional supervisory task, school business task, experience and qualification put together.  $Df=(12, 486)$ ;  $F\text{-cal}= 0.873>$

$F\text{-val } 0.575; P>.05$  The hypothesis is rejected.

$H_3$  There is no significant difference between cyclic and linear principals in their approach to administrative tasks' performance.

**Table 3 :** Chi-square Summary Testing if There is any Significant Relationship Between Principals who are Cyclic on Task Performance and Principals who are Linear on Task Performance.

Time management	Personnel task/ instructional supervisory task/school business task/physical plant maintenance task/human/public relations task			Total	$\chi^2$ Cal	$\chi^2$ Tab	df	$\alpha$
Cyclic in task performance	54 (62.1)	46 (38.2)	19 (16.4)	119	8.54	9.49	4	0.05
Linear in task performance	86 (82.1)	74 (66.5)	22 (19.4)	182				
No clear approach	142 (121.1)	38 (34.5)	44 (40.2)	224				
Total	282	158	85	525				

Table 3 shows that the  $\chi^2_{cal}$  value of 8.54 is less than the  $\chi^2_{tab}$  value of 9.49 ( $df=4; \alpha=0.05$ ). Therefore, the hypothesis which states that there is no significant differences between principals' who are cyclic in task performance and principals' who linear in time performance is thus accepted.

#### IV. DISCUSSION AND CONCLUSION

The findings of  $H_{01}$  support Abari (2005) wherein he opines that decision-making processes should spread out among all school personnel with specific areas of attention. This is because the principal cannot take on all personnel task, all by himself, and at once. He must delegate responsibilities to standing and ad-hoc committees. This gives the principal the time to attend to incidentals and emergencies not originally planned for but anticipated and must be attended to in the tradition of the school.

The committee system being the formation of two or more people within the institution to assist the principal in a sector of the school, either by proffering solution to a problem or suggesting ways of performing a task or performing the duty of the principal on a specific task in the school. Member of the committee are usually from within the establishment but may also come from outside provided they have enough

knowledge of and interest in the assignment to be carried out. Remember that not much thinking is taking place when everybody on a committee thinks alike. Committees may be interim, ad-hoc or standing. The committee is taking decision on behalf of the institution which is binding on both staff and students and so, committee decisions are far reaching and possibly time saving.

This position of  $H_{02}$  disagree Kolo (2006) Arubayi (2006) and Ugwuzor (2007) in their submission that there is no significant effect of principals' time management on a combination of school personnel task and human/public relations task.

$H_{03}$  upholds the view that principals in Lagos State take on tasks and irrespective of the challenges faced or time constraints; forge ahead until he overcomes the task. So, he takes on a task, completes it, goes on to the next task. Often the most frequent source of interruption is the principal himself. If a task becomes difficult, then, one is tempted to turn to something else. Many find it difficult to concentrate for protracted periods of time. It is prudent to remember that more is likely to be achieved in one hour of continuous application than in several hours of interrupted work because a recovery period is necessary after each stoppage. It is expedient to discover if the

task jumping is self-inflicted because the study carried out by Levine found that telephone calls frequency interrupted the flow of activity of principals' (a machine which the principal has a choice to either receive or ignore).

This research finding concludes that, everyday, each principal has twenty-four hours for his use. This comes to each principal in equal measure irrespective of sex, religion, qualification or experience. This priceless gift for school administration, if it is understood, is the carrier of all opportunities for personal and school growth, health, effective and efficient school administration. It comes in disguise. But if the principal does not use it well, it is burnt silently away with its contents never to return.

## V. RECOMMENDATIONS

1. Principals should make conscious effort to identify where and why time is wasted and eliminate them. This could be done through a periodic time audit by allotting time to each routine administrative task and check at the end of the activity if it was satisfactorily concluded within its schedule.
2. Principals should maximize the use of the principles and practices of delegation of responsibility and the committee system as an administrative tactics and strategy. This does not only save the principal's time but also makes time available for emergencies, trivialities and incidentals that demand clinical attention. There should be dead lines for reports, actions and feed back from the delegate or committee to the principal on all decisions taken and their implementation.
3. Principals should keep a day runner structured in a way that would remind the principal, item by item, programmes, events and activities for each day. A check list would be required at the end of each day in order to know the level of execution and the success or otherwise.
4. Principals should have a quiet time to remain alone in order to reflect on his actions, reactions or inactions each day to know if there are grew areas or over sight for a possible re-visit or review. This is a form of self evaluation and self appraisal.
5. Principals should set special days or time to receive visitors except in an emergency. Otherwise, senior members of staff could be deployed to attend to complaints or inquiries from members of the public and within the school.
6. Principals should be time conscious at all meetings, whether formal or informal. Formal meetings should have an agenda to be strictly followed. The use of guillotine is thus recommended to enhance the quality of discussion as a time-saving device.
7. Principals should be transactional in their approach to school administration. This requires being a situational leader that operates like a pendulum

between the monochronic and polychronic patterns. The situation in which you find yourself and the nature of the transaction to be carried out should assist as to whether to go linear by completing a task before going to the next or whether to be cyclic by taking on two or more tasks at the same time, going back and forth.

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## Social-Constructivism: Futuristic Sphere for eLearning in HEIs

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**Abstract** - Under the theory of 'objectivism' a teacher is 'sage-on-the-stage' where student is passive while teacher is active and whatever is delivered by the teacher is accepted by the student unquestionably. However, in 'constructivism' learning environment a teacher is supposed to play the role of 'guide-on-the-side' thereby giving more space and place to the students for learning by themselves and on their own. There is mushrooming research on the mundane roles of information and communication technologies (ICTs) in the learning environments. Research reveals that networking technologies and social software has created the opportunities to shift from traditional and biblical models of teaching through objectivism to the new styles of learning under the models of cognitive and social constructivism. This paper is effort to trace the milestones on the way from objectivism to constructivism particularly in the higher education institutions (HEIs).

**Keywords** : ICTs, HEIs, Paradigm-Shift, Objectivism, Constructivism, Cognitive & Social Constructivism.

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**Abstract** - Under the theory of 'objectivism' a teacher is 'sage-on-the-stage' where student is passive while teacher is active and whatever is delivered by the teacher is accepted by the student unquestionably. However, in 'constructivism' learning environment a teacher is supposed to play the role of 'guide-on-the-side' thereby giving more space and place to the students for learning by themselves and on their own. There is mushrooming research on the mundane roles of information and communication technologies (ICTs) in the learning environments. Research reveals that networking technologies and social software has created the opportunities to shift from traditional and biblical models of teaching through objectivism to the new styles of learning under the models of cognitive and social constructivism. This paper is effort to trace the milestones on the way from objectivism to constructivism particularly in the higher education institutions (HEIs).

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## I. INTRODUCTION

ICTs are creating a new global economy, which uses technology as power; information as fuel and knowledge controls the driving seat and these technologies are emerging as the electricity of information-age (Macleod, 2005) to construct an information-society and knowledge-economy (Hameed, 2007). However, technological innovations and applications depend on the education system of a country for example; any digital initiative is fueled by a batch of ICT-professionals to develop and users to apply technologies for organizational objectives (Nawaz, 2010). It is the education system which helps a nation in taming ICTs for government, business, agriculture, banking and education by generating professionals however, this requires the education system itself to be computerized first (Nawaz, 2011; Nawaz, 2012a, 2012b).

As the learning technologies are becoming inexpensive and widely accessible, the models of teaching and learning are significantly changing. There are "paradigm shifts" in different dimensions of

eLearning and the environment around it. For example, modern eTeacher is mentor, coach or facilitator for the successful integration of ICTs into the pedagogy. The teacher's role has shifted from being 'a sage on the stage' to 'guide on the side' (Mehra & Mital, 2007). Likewise, contemporary students are called 'Millennials, Electronic Natives, the Net Generation' who are grown up digital therefore possess absolutely new learning habits like independence and autonomy in their learning styles and multitasking due to the availability of new gadgets (Nawaz & Kundi, 2010b; Kundi & Nawaz, 2010).

Within education community, ICTs have begun penetration, for example, in Western Europe, it is common to use ICT for logistical, organizational and educational functions of higher education institutions (HEIs) (Baumeister, 2006) showing that ICTs are changing the nature of work and the workplace for all the university constituents (Qureshi et al., 2009). ICTs are changing the organization and delivery of higher education because they are adopting alternatives to the traditional classroom pedagogy and developing a variety of eLearning courses (Nawaz et al, 2011d). Research also suggests that ICTs offer new learning opportunities for students 'eLearning', develop teacher's professional capabilities 'ePedagogy' and strengthen institutional capacity 'eEducation' and most universities today offer some form of eLearning (Nawaz et al., 2011a).

Given the new learning environments emanating from the explosion of ICTs, the pedagogy is departing from transmitting knowledge based on behaviorism where students are passive receivers of whatever is given by the teacher, to negotiated and harvested knowledge founded on cognitive and social constructivism where students are free to construct their knowledge by negotiating with others and harvesting the learning process (Kundi & Nawaz, 2010). The use of ICTs in and for education is rapidly expanding in many countries and considered both as a necessity and an opportunity (Nawaz & Zubair, 2012a).

## II. ICTS IN HEIS

eLearning is a popular topic for the researchers on higher education and corporate training and explained as the 'application of electronic technologies' in supporting, enhancing and delivering education (teaching and learning) (Qureshi et al., 2009). ICTs

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represent computers, networks, software, Internet, wireless and mobile technologies to access, analyze, create, distribute, exchange and use facts and figures (Nawaz & Kundi, 2010c). eLearning is an individualized instruction accessed over a public (Internet) or private (Intranet) networks therefore, it is also known as 'internet-based training (Nawaz et al., 2011a).' Several terminologies are used for eLearning: computer-based instruction, computer-assisted instruction, web-based learning, electronic learning, distance education, distance learning, online instruction, multimedia instruction, online courses, networked learning, virtual classrooms, and so on (Nawaz, 2012a).

Traditionally, students used transmissive modes of learning, however, now there are shifts from content-centered to competency-based curricula as well as departures from teacher-centered to student-centered delivery where students are encouraged to take on the driving seat for self-learning. eLearning offers a complete information technology support to these innovations (Nawaz et al., 2011d) for example, its tools and techniques can be applied in any learning situation, no matter whether it happens face-to-face, in blended or hybrid courses, or online virtual learning (Nawaz et al., 2011a). There are two types of eLearning: self-managed (asynchronous) and teacher-led (synchronous) where first is off-line while the later is online. Web-based learning is globally accessible, easily maintainable, platform-independent, secure, and quickly updatable and entertains a diversity of learning styles by providing a self-controlled system (Nawaz & Zubair, 2012b).

In nutshell, HEIs are passing through an evolutionary process of getting digitized from simple to sophisticated chip-technologies. eLearning begins with a partial or supplementary use of ICTs in classroom then steps into a blended or hybrid use (a mix of face-2-face and electronic instruction), and finally, emerges as a fully online synchronous and asynchronous virtual learning environments serving physically dispersed learners (Kundi & Nawaz, 2010). However, it can never be possible to completely replace face to face pedagogy and learning with virtual education except some institutions may be operating completely online but rest of the institutions will continue blended use of educational technologies because 'this, in itself, serves the purpose' (Nawaz et al., 2011d).

### III. APPROACHES TO E-LEARNING

It is well-established that the use of ICTs is dependant on the perceptions of developers and users about the nature of technologies and their role in different walks of life (Aviram & Tami, 2004). Sasseville (2004) have found that technology-related changes are "not perceived as a collective experience or social change rather, personal challenge." An analysis of the literature suggests that two broader theories are discussed over and over saying that ICTs can either play

'instrumental' or 'substantive' role in the learning process (Macleod, 2005). Instrumental view asserts that ICTs are just technologies and their use defines their role while substantive view posits that these technologies have the power to change the society and just their existence can make the difference. Likewise, the same ideas are also characterized as 'instrumental' and 'liberal' theories of eLearning (Nawaz & Qureshi, 2010b).

#### a) Objectivism

Historically, computer-based learning has been built around the realist/objectivist notions of knowledge with the assumption that reading, watching videos or controlling a button on these digital gadgets constituted 'active learning' but experience testifies that these models have failed to bridge the gap between theory-n-practice (Nawaz & Kundi, 2010c). In this mode, learning is achieved through a model where teacher comes well-prepared with learning contents, which are simply transmitted to the students who receive everything passively to remember whatever is given by the teachers and instructors and then evaluated through observable measures like tests, assignments and examinations (Kundi & Nawaz, 2010).

As a psychological theory, behaviorism emerged as a reaction to theories of mind in late 19th century, suggesting that mental processes cannot be understood without objective scientific methods like observational and quantifiable investigation (Ward et al., 2006). The objectivist teaching gives complete control of materials to the teacher who manages the pace and direction of learning thereby making learning a sequential process where there is a single reality about which students have to demonstrate their command and "understandings through declarative, procedural and conditional knowledge (Phillips et al., 2008)." Taken together, objectivist teaching and learning is based more on visible dimensions of education and less on cognitive and social determinants of pedagogy and learning (Nawaz et al., 2011a).

#### b) Constructivism

With the emergence of collaborative technologies, it has been recognized that behaviorist models do not fit with contemporary teaching and learning environments, therefore 7 current research is focusing on the development of constructivist models of eLearning (Nawaz & Qureshi, 2010b). Constructivists contend that ICTs should not be guided by a technologically deterministic approach rather in the context of social, cultural, political and economic dimensions in the sense that culturally relevant online content, interfaces and multimedia can help in social inclusion to the developing countries (Kundi & Nawaz, 2010). Furthermore, the effectiveness of behavioral approach is questionable in areas where there is the need for comprehension, creativity and 'gray' answers (Nawaz et al., 2011b, 2011c).

The constructivists believe that there is no single version of reality, rather a multitude of realities situated within each learner. As such, learning is dependent upon learners' abilities of analyzing, synthesizing and evaluating information to construct "meaningful, personalized knowledge (Phillips et al., 2008)." The constructivist theories of learning dominate today and propagate that learning is achieved by the active construction of knowledge supported by various perspectives within meaningful contexts and social interactions. These environments create engaging and content-relevant experiences by utilizing ICTs and resources to support unique learning goals and knowledge construction (Nawaz, 2012b).

The strengths of constructivism lie in its emphasis on learning as a process of personal understanding and the development of meaning where learning is viewed as the construction of meaning rather than the memorization of facts. eLearning environments provide many opportunities of student-centered constructivist learning that is situated in the contexts (Nawaz & Kundi, 2010c). Since knowledge is quickly changing; the design and development principles need to be aligned with the emerging requirements of teachers and students, which are the provision of such cognitive tools, which can be adapted for intellectual partnerships among teachers and students to facilitate critical thinking and higher-order learning (Kundi & Nawaz, 2010).

#### i. *Cognitive Constructivism*

The cognitive constructivism gives priority to the cognitive powers of an individual rather than the behavioral or physical dimensions, for example, users' 'learning-styles' are used to measure the cognitive trends the users. The developers of eLearning face the challenges of producing systems, which accommodate individual differences such as nationality, gender and cognitive learning style (Qureshi et al., 2009). The ICTs can play a supplemental as well as central role in learning by providing digital cognitive or adaptive tools or systems to support constructivist learning (Nawaz & Kundi, 2010a). The design of computer-based learning has undergone a paradigm shift; moving students away from creating technical rationality with objectivism, to the use of ICTs in developing cognitive tools for constructivist learning (Nawaz & Kundi, 2010c).

Since students vary in their cognitive or learning styles therefore, they benefit more from those teaching techniques that appeal to their individual styles (Cagiltay et al., 2006). Similarly, the rapid development of digital technologies in the emerging information society is forcing the individuals to command and employ cognitive skills in teaching and learning process (Aviram & Eshet-Alkalai, 2006). Thus, in cognitive learning learners create and test their own hypotheses about the realities and analyze data according to their learning-style, preferences and "a dynamic process of personal

trial and error (Ward et al., 2006)" with the cognitive participation of teacher (Nawaz et al., 2011a).

#### ii. *Social Constructivism*

In contrast to cognitive-constructivism, 'social-constructivism' emphasizes 'collective-learning' where the role of teachers, parents, peers and other community members in helping learners becomes prominent. Social constructivists emphasize that learning is active, contextual and social therefore the best method is 'group-learning' where teacher is a facilitator and guide (Nawaz & Qureshi, 2010b). Social constructivists explain the technology-adoption as a process of involving social groups into the innovation process where learning takes place on the learners' experiences, knowledge, habits, and preferences (Kundi & Nawaz, 2010). In contrast to traditional classrooms where teachers used a linear model and one-way communication, the modern learning is becoming more personalized, student-centric, non-linear and learner-directed (Nawaz, 2012a).

While cognitive constructivists believe that learning takes place through interaction with environmental stimuli alone, social constructivists argue that culture also influences the design and development of the learning models (Qureshi et al., 2009). Therefore, it is necessary to move eLearning beyond learning management systems and engage students in an active use of the web as a resource for their self-governed, problem-based and collaborative activities like using social software (Nawaz, 2011). The concept of social constructivism has been around since 1990s when research started on the interpretivism in the design and development of computer-based information systems (Nawaz, 2012b).

The extreme form of constructivism is social constructivism, which is gaining foothold in higher education because teaching and learning can now easily be undertaken as a social and community activity (Sasseville, 2004) thereby propagating collective (social) as well as individual (cognitive) learning with the help of traditional email/chatting and modern wikis, blogs, vblogs, RSS feeds and several emerging collaborative technologies (Klamma et al., (2007). For example, RSS is a format used to publish frequently updated works like blog-entries, new headlines, audio and video publications (Wikipedia, 2011).

### III. SIGNPOSTS OF SOCIAL CONSTRUCTIVISM

The change in teaching, learning and education management is not just technical; it has rather transformed the whole scenario of education in HEIs. The tenets of globalization in the background of global village are not neutral rather contain ideological underpinnings which influence the technology-users not only the way they work rather their perception of pedagogy, learning and education delivery has gone

through metamorphosis (Nawaz et al., 2011a). Summarizing the multiplicity of these paradigm shifts it can be noted that this is the shift from instruction to construction and discovery; teacher-centered to learner-centered pedagogy; teacher as transmitter to the teacher as facilitator; absorbing material to learning how to navigate and how to learn; one-size-fits-all to customized learning; linear to hypermedia learning; learning as torture to learning as fun, and, from school to lifelong learning (Nawaz & Zubair, 2012b).

In the present knowledge-society where there is information overload the profession of teaching is shifting from transferring knowledge to guiding learning processes (Qureshi et al., 2009). Research tells that the condition of ICTs in HEIs of UK and Ghana have been changing over the last decade from seeing ICTs as either a subject or a set of skills to recognizing the importance of ICTs as tools for learning. If used adequately, ICTs can assist a pedagogical shift resulting into a constructive educational interaction between teachers and learners (Nawaz, 2010). There is need to implement a wider range of teaching and learning strategies based on a techno-constructivist paradigm that is aligned with the skills needed for an information society (Nawaz et al., 2011d).

#### a) *From Technocracy to Democracy*

The higher education is moving away from an 'elite system to a mass education system' as it is evident from the mushrooming number of students around the world (Nawaz & Kundi, 2010b). Modern higher education can perform new functions in the favor of society at national and international levels, for example: identify the preconditions for development; provide education for all; produce graduates to provide leadership roles in education as researchers, teachers, consultants and managers for public and private sectors; enhance educational management, and finally, HEIs can go beyond their traditional models to new formats of learning, teaching and research (Nawaz & Kundi, 2010c). Furthermore, eLearning and digital literacy have the potential to shift power bases for developing countries from elites to masses by elevating the education systems to capitalize on the collective intellectual capital of educators and educated (Nawaz et al., 2011a).

##### i. *Life-Long Learning (LLL)*

eLearning is defined as the use of ICTs for student-oriented, open, active, collaborative, and life-long teaching-learning processes (Thurab-Nkhosi et al., 2005). The difference between 'traditional and current education' is that formerly people were used to 'Learn at a given age' while current education is for 'Lifelong learning' (Nawaz, 2010). The European Commission defines lifelong learning as any activity undertaken at any stage of life for improving knowledge, skills and competences for personal, social and/or employment-

related purposes (Nawaz & Kundi, 2010b).

Several studies suggest that ICTs can transform the education by motivating the students toward lifelong learning (Valdez et al. 2004). Similarly, new functions of HEIs include meeting the needs of learners and teachers for "lifelong learning (Goddard & Cornford, (2007)." UNESCO adopted Lifelong Learning as a master concept in 1970 after recognizing the relationship between the mass-education and economic and social outcomes therefore, by the end of the last century most world governments had recognized the importance of support for lifelong learning (Nawaz, 2010).

##### ii. *Education For All (EFA)*

In a conference by UNESCO on 'Education for All', broader objectives, requirements and strategies have been identified by the participants from member countries, which include:

1. Create such educational contents and process which fits within local context of social and cultural requirements with modern ICTs to create individual autonomy in the global society.
2. Develop such formal and informal education services, which are accessible to all.
3. Harness the ICTs for all in order to broaden the reach of education, particularly for the excluded and underprivileged groups.
4. Replace costly and culturally alien education structures with less expensive systems, which are more flexible, diversified and globally affordable (Nawaz & Qureshi, 2010b).

One of the biggest expectations from eLearning is about its ability to offer equal education for everyone. For example, the eCourses over internet have the power to reach any corner of the planet and deliver same high-quality education everywhere (Nawaz, 2010). The technological, economic, and social changes of the past decades have made education for all (EFA) more significant than ever before therefore, HEIs are making efforts to bring educational opportunities to all and provide learners with knowledge and skills for evolving workplaces and sophisticated living environments, and to prepare citizens for lifelong learning (Nawaz, 2011).

##### iii. *Bridging the Digital Divide (DOI)*

The issue of 'digital-divide' is commonplace and has generated a plethora of public addresses, reports, policies, and plans thereby attesting the importance of the concept (Macleod, 2005). Though computers are becoming more prevalent, the rapidly increasing digital divide continues to separate those who have access to ICTs from those who do not thus, today is a world of many divides, with 'Digital-Divide' on the top, which is generating and worsening other economic and social divides (Hameed, 2007). The term 'digital-divide' is used to describe the gap in technology resources, information, and education (Wells, 2007). It



refers to the divergence between individuals, communities, cultures and nations at socio-economic levels in terms of access to ICTs and use of internet (Moolman & Blignaut, 2008). Access and digital divide have always been an issue for eLearning in many countries (Koo, 2008).

Research asserts that educational technologies have a key role in effectively reducing the digital divide particularly in the developing states. Digital Opportunity initiatives (DOI) are the efforts to bridge the digital divide (Hameed, 2007). Policy makers in Africa and elsewhere have put forth technology, technical competence, and computer and information literacy as solutions for many of the problems, like, teacher shortages, low achievement, high drop-out rates, lack of opportunities and materials (Wells, 2007). Likewise, the incorporation of ICT into the educational contents is promoted as a key step to bridge the digital divide (Nawaz & Qureshi, 2010a). HEC (2012) resolves on its website that by providing the HEIs with ICT-infrastructure, the nation will become capable to achieve sustainable economic growth and prosperity for all citizens and thereby bridge the digital divide between institutions in Pakistan and worldwide.

#### *b) From Computerization to Personalization*

When ICTs emerged, their primary use was the automation of individual and organizational jobs therefore no consideration was given to the user's personal relation with technology or customized use of ICTs. It was simply not possible because technologies did not allow so whatever was done by technology was great. In this way, there was computerization or digitization of the individuals and organizations and not otherwise (Nawaz & Kundi, 2010c). However, as the computer technologies evolved into first information technologies and then ICTs, the scenario has begun to change. Now, ICTs are more diverse, powerful, mobile and integrative to help users in personalizing and adapting the ICTs to their individual requirements and not otherwise (Nawaz & Kundi, 2011).

##### *i. Computerization of Individuals and Organizations*

Transaction processing systems (TPS) were the first popular programs to automate mechanical, structured and routine matters and decisions. So the view of technology was naturally 'instrumental' and not 'substantive' in the sense that computerization was considered as a neutral process with no implications for humans and therefore society at large (Mehra & Mital, 2007). Before the emergence of new social technologies, the ICTs were not capable to be used for broader and instant social interactions therefore; most of the applications remained instrumental and not liberal and substantive (Nawaz & Kundi, 2010b).

The emergence of networking, Internet, intranets, extranets, web 2.0 and social software have created an integration of user-friendly ICTs, which not

only help in automation but also offer socializing tools to conduct collective activities like group decision making, group learning and interactions at the international level at anytime from anywhere (Phillips et al., 2008). Thus, it is the technologies themselves which are changing the work environments because users design multiple uses of ICTs only when technologies emerge. For example, video conferencing naturally forced the individuals and organizations to socialize without physical interactions, thereby introducing a technology-based group interaction with the feelings of physical involvement while all this happens virtually (Nawaz & Kundi, 2010a).

##### *ii. Personalization and Adaptation of ICTs*

Personalization and adaptation technologies are that group of ICTs, which are used in the design and development of 'end-user-computing' to make the environment user-centered. Adaptation is the process of modifying the learning environments in the support of learning processes (Nawaz et al., 2011a). While personalization technologies range from simply displaying the user-name on a web-page, to advanced navigation and customization according to the rich models of user behaviors (Nawaz, 2011). It is generally recognized that effective and efficient learning need to be individualized, personalized, and adapted to the learner's preferences, competences, and knowledge, as well as to the current context. Adaptive learning systems keep the information about the user in the learner model and thus provide adaptation effects on the digital environment (Nawaz, 2012b).

#### *c) From Teacher to Student*

##### *i. Teacher-Centric ePedagogy*

As learning shifts from the 'teacher-centered model' to a 'learner-centered pedagogy' the teacher becomes a facilitator, mentor and coach with primary task of preparing students in asking questions, formulating hypotheses, locating information and then critically assessing the information in relation to the proposed hypotheses (Qureshi et al., 2009). For example, new hypermedia applications are offering individualized and learner-centered delivery systems because these are the quickest way of acquiring knowledge (Kundi & Nawaz, 2010). If ICTs are used correctly they can assist in adopting a more people or learner-centered and dialogical approach to education through a meaningful two-way communication between teachers and learners (Nawaz & Qureshi, 2010b).

##### *ii. Student-Centered Learning-Environment*

The learner-centered approach derives from the theory of constructivism, which argues that knowledge is neither independent of the learner nor a learner passively receives it, rather, it is created through an active process where a learner transforms information, constructs hypothesis, and makes decisions using his mental models and ultimately give meaning and

organization to individual experiences (Nawaz & Kundi, 2010c). The use of ICT in education offers more student-centered settings, which are constructivist in nature due to their provision and support for resource-based, student centered settings and by enabling learning in a context (Nawaz & Qureshi, 2010b). As internet is offering new ways of connecting and networking people, educators are learning to use these technologies to create and enable learning-communities (Kundi & Nawaz, 2010).

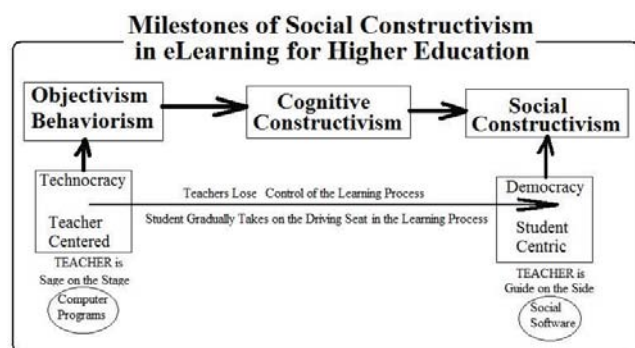


Figure 1 : Showing the Schematic Diagram of the Milestones of Social Constructivism

#### IV. DISCUSSIONS

Research tells that education is the biggest user of software and web services showing that eLearning is widening the picture of education (Baumeister, 2006) thereby creating several stakeholders including knowledge-industry, academia, designers, policy makers and other institutions involved in ICT-based higher education (Nawaz et al., 2011d). The knowledge revolution and economic globalization has created knowledge-based industries who work on the basis of computer-literate workforce thereby pushing the countries to restructure their educational system and incorporate digital literacy in their curriculum because eLearning offers a diversity of opportunities for both the teachers and students (Nawaz, 2012a).

The emergence of educational technologies is forcing educators to construct alternative theories for learning. The paradigm shift in HEIs refers not only to the departure from pedagogy to ePedagogy; it also characterizes the changes within eLearning environments for teaching, learning and administrative purposes (Nawaz et al., 2011a). This dimension of paradigm shift is described in terms of the progress from old-ICTs to new-ICTs in three stages of traditional-eLearning, blended-eLearning and contemporary virtual-learning. The technological developments in eLearning are linked with the theories of learning like behaviorism, objectivism, and cognitive and social constructivism (Nawaz & Zubair, 2012b).

Objectivism believes that everything related to learning is predictable therefore there can be one

universal eLearning model wherein priority is given to the stimulus-response relationship while cognitive aspects of learning are ignored (Kundi & Nawaz, 2010). Constructivism, on the contrary, argues that reality does not exist out there objectively rather it is constructed by the human beings subjectively therefore it is not predictable in total rather most of it depends on human perception, which in turn draws the picture/image of reality (Nawaz et al., 2011d). The constructivism in higher education have been pushed by the emergence of universal connectivity through ICTs, which has enabled the masses to globally communicate and freely access the global knowledge resources through internet (Nawaz, 2012a).

#### V. CONCLUSIONS

Social constructivism have become a reality in some parts of the world particularly the advanced countries while rest of the world is struggling at different levels of the trajectory (see Figure 1). The issue is multidisciplinary and needs to be addressed from all related dimensions. Furthermore, shifting from objectivism to social constructivism is not simply based on the willingness of the users rather several independent variables configure the transformation process independently. For example, existence of latest digital technologies is indispensable for creating social networks to implement social constructivism in eLearning systems.

However, as discussed across this paper, generation of social constructivism is not actually techno-centric rather human and social therefore 'digital literacy' of the users stands as the major determinant of any move for adopting eLearning systems. The experience shows that provision of digital gadgets is gradually becoming a minor problem and even the poorest states are now getting access to the digital devices. There are social, human, organizational and managerial issues which are more critical and daunting for the authorities responsible for eProjects anywhere including eLearning systems of higher education.

It can therefore be concluded that the only way to create 'eLearning environments' that are based on 'social constructivism' is focusing on the 'native research' and 'digital literacy' of users. Domestic research will highlight totally indigenous models of the problems as well as solutions for introducing latest digital technologies in the learning systems of higher education. In Pakistan, research on the local problems of eProjects in HEIs is now emerging and informing about the unique position of the issues in the background of eLearning projects in higher education institutions of the country.



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## Labor Management Relations

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**Abstract** - Labor-management relations are the interacting relations between labor and management. The purpose of our study is to find out the worker wage satisfaction, worker satisfaction with supervisory behavior and worker satisfaction with welfare items. This cross sectional study was conducted from October 2010 to January 2011. A group of 200 employees was take part in this study through a predesigned questionnaire which consists of three parts to meet the objectives, which was collected from private organizations. There is an dilemma of weak relationship between labor and management that the labor force is not satisfied with their management behavior, wages and welfare items. Which tends towards the lack of accuracy in products and process of producing products. By this research we come to conclusion that the government should took part in this segment to apply the labor law accurately to provide the rights to the labor force and management should also have to contribute their efforts to satisfy their labor force so that they can perform well when they were satisfied perfect. Its means that the management is the part of labor force and labor is the part of management. This relation can become strong when they provide satisfaction to each other in work place.

**Keywords** : *Supervisory Behavior, Welfare items, Wages, Needs.*

**GJMBR-A Classification**: *FOR Code: 150305, 150311 JEL Code: J53*



*Strictly as per the compliance and regulations of:*



# Labor Management Relations

Amir Razi<sup>a</sup>, Muhammad Ramzan<sup>o</sup>, Syed Atif Ali<sup>p</sup>, Huda Khan<sup>o</sup> & Zain Hassan<sup>¥</sup>

**Abstract** - Labor-management relations are the interacting relations between labor and management. The purpose of our study is to find out the worker wage satisfaction, worker satisfaction with supervisory behavior and worker satisfaction with welfare items. This cross sectional study was conducted from October 2010 to January 2011. A group of 200 employees was take part in this study through a predesigned questionnaire which consists of three parts to meet the objectives, which was collected from private organizations. There is an dilemma of weak relationship between labor and management that the labor force is not satisfied with their management behavior, wages and welfare items. Which tends towards the lack of accuracy in products and process of producing products. By this research we come to conclusion that the government should took part in this segment to apply the labor law accurately to provide the rights to the labor force and management should also have to contribute their efforts to satisfy their labor force so that they can perform well when they were satisfied perfect. Its means that the management is the part of labor force and labor is the part of management. This relation can become strong when they provide satisfaction to each other in work place.

**Keywords** : *supervisory Behavior, Welfare items, Wages, Needs.*

## I. INTRODUCTION

Measurement of labor management relations is a complex phenomenon since it involves the human element. Labor-management relations are the interacting relations between labor (employees) and management (employers). 'Management and labor' is the English term used in EC law to refer to organizations representing workers and employers. The equivalent term used in other language versions is 'social partners'. Based on expounding, the essence of labor-management relation confliction and cooperation. Relationship between employers and employees and their dealings with each other. In most industries, wages and conditions are determined by free collective bargaining between employers and trade unions. Some European and American countries have worker participation through profit-sharing and industrial democracy. Another solution is co-ownership, in which a

company is entirely owned by its employees. The aim of good industrial relations is to achieve a motivated, capable workforce that sees its work as creative and fulfilling. A breakdown in industrial relations can lead to an industrial dispute where one party takes industrial action. A 1947 federal law designed to protect employers, employees, and the public. It governs union activities and provides an arbitration mechanism for strikes that cause national emergencies.

Demand for experts in labor-management relations continues to grow as new legislation and court rulings continuously update standards for employment conditions. Acquire the practical skills and knowledge essential to constructive labor-management relations. Examine the most current regulations, and learn to prepare information for use during negotiations. There have been several attempts to make the study of human relations more scientific. Human behavior changes too much from one period to the next, to permit scientific, exact prediction. Human behavior can be studied only by other human observers, and these always distorts fundamentally the facts being observed, so that there can be no objective procedures for achieving the truth. Human behavior thus becomes the study of infinitely variable, unique and non-measurable situations, rather than the investigation of repetitive, simplify able and observable behaviors. Thus, physical sciences cannot serve as a model for social sciences. Several attempts have been made to measure the attitudinal framework of humans in a scientific manner. Concepts, premises and procedures have been re-examined so that measurement could be possible through empirical research and use of quantitative techniques.

## II. LITERATURE REVIEW

The literature review is divided into three parts, each to cover an issue raised by there search questions. The purpose of the literature review is to discover what has been published about the issues.

In "Labor and Management Bridging the Gap," Daniel Law (1994) stated, "Since the beginning civilization, the relationship between those who direct the work and those who accomplish it has been fraught with conflict and resentment". As it relates specifically to the fire service, the purpose of the labor organizations has been to enhance the compensation, benefits and working conditions of the members through collective unity. Richard Earle writes, "Public sector management has traditionally dealt with organized labor unions with adversarial positions based on negotiations. This

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confrontational approach to problem solving filters throughout the organization and soon is viewed as a fact of life. This creates ineffective problem solving techniques, wasting valuable time and personnel resources, often without a viable solution to the original problem area being implemented". When disputes arise or policies are being implemented, labor organizations view the change as win-lose situation.

According to Christopher Reynolds (1994), traditional labor/management relations place emphasis on contract negotiations, grievance procedures, and discipline administration and impasse/arbitration procedures.

Relations between labor and management have been strained through the years. Most fire departments are semi-military organizations. The management practices that were sufficient 50 years ago do not work with today's work force. It is time that these practices change to reflect the current workforce (Piderman, 1995).

Maslow is best known for his concept of hierarchy of needs, which he used to explain employee motivation. He classified needs in ascending order of urgency (paul.D.Sweeney 2002)

- 1) Physiological needs
- 2) Safety needs
- 3) Social needs
- 4) Ego needs
- 5) Self-actualization needs

Collaboration greatly enhances an organization chances of success, historically collaboration applied to agencies, but it can be more effective among agencies, families and neighborhood. It creates lasting relationship and use resources effectively. Collaboration can range from informal partnership to formally planned relationship. In this case it always provides opportunities for building relationship. It can also be power full way to enhance the well-being of agencies, families and neighborhood (Massaki Imai (1986) Kaizen).

The purpose of our study is to find out the satisfaction of the labor towards it's employer or management regarding wage satisfaction, satisfaction with supervisory behavior and satisfaction with welfare items.

### III. METHODOLOGY

It was a cross-sectional analytical study conducted from October 2010 to January 2011. A group of 200 people was take part in this study through predesigned questionnaire which was consist of four parts, one related to the demographic portion, 2nd related to managerial behavior, 3rd related to the wage satisfaction of the labor and 4th related to the satisfaction from welfare items. Convenience Sampling was used in our survey and 200 samples were selected from the population of the two organizations named Irfan Textile's Pvt. Ltd. And Sajjad Textile's 100

questionnaires were filled form Irfan Textiles and 100 from Sajjad Textile. There were two hypothesis were made which are as follow.

#### a) Hypothesis

H1. There is no association between wage satisfaction and Gender.

H2. There is no association between satisfaction with supervisory behavior and Gender.

H3. There is no association between satisfaction with welfare items and Gender.

### IV. RESULTS

Out of 200 participants 51.3% of male agree and 48% of female are strongly agree with that the increase in the wages of the workers can improve worker's satisfaction. 43.7% of male and 35% of female are neutral about that their wages compared with other public sector plants and 51.3% male and 35% female are neutral about that their wages compare with those in similar private sector plants. 30% of male and female are disagree with that the same wage rate should be adopted for old and new employees. 51.3% of male and 40% of female are disagree with that the salary is fair for their responsibilities and on the same situation 40% of male and 35% of female are disagree with that their salary fulfills their expenses. 35% male and 36.1% female are neutral about their current wages. 51.3% of male respondent and 42.8% of female are strongly agree with that wages should be changed according to the time and 44% of male and 46.6% of female are strongly agree with that wages are the important element for raising employee performance. (Table 1)

*Table 1* : Distribution of Wage Satisfaction and gender respondents:

Cases	Gender									
	Male					Female				
	Strongly Disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %	Strongly Disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %
Do you think that increase in wages can improve worker's satisfaction?	2.5	3.8	16.1	51.3	26.3	5.0	6.0	20.0	21.0	48.0
Do your wages compare with other public sector plants in Pakistan	1.3	17.5	43.7	32.5	5.0	10.0	15.0	35.0	30.0	10.0
do your wages compare with those in similar private sector plants	3.8	16.3	51.3	23.6	5.0	10.0	25.0	35.0	20.0	10.0
Same wage rate should be adopted for old & new employees	16.3	30	29.8	15.1	8.8	20.0	30.0	20.0	18.9	11.1
Do your salary is fair for your responsibilities	16.3	51.3	23.8	6.1	2.5	15.0	40.0	29.1	9.6	6.3
do your salary fulfills your expenses	21.2	40.0	30.0	5.0	3.8	21.0	35.0	28.5	9.4	6.1
Are you satisfied with your present wages	13.8	19.2	35.0	22.5	9.5	16.8	24.4	36.1	17.9	4.8
Wage rate should be changed according to time	6.1	2.5	8.8	31.3	51.3	5.0	10.0	20.0	22.2	42.8
Wages are the most important element for raising employee performance	1.5	5.9	18.1	30.5	44.0	4.5	6.6	11.5	30.8	46.6

About the supervisory behavior the results are similar to the situation that mostly the labor in the organizations are neutral about the supervisory behavior like 30.2% male and 29.4% female labor are neutral about that their supervisor make them feel valued at work place. Similarly, 30.9% male and 29.8% female again neutral about that their supervisor gives them undesirable job assignments. 31.8% male and 29.6% females are neutral about that their supervisor gives them good technical suggestions. 40.2% male and 29.8% females are again neutral for that their supervisor makes their work difficult for them. 24.7% male and 29.8% female are neutral about that their supervisor shares with them considerable experience or training. 29.8% male and 28.4% female says neutral about that their supervisor provides them sound job related advices. 25.8% male and 27.7% female are disagreeing with that their supervisor gives them the feeling that they have responsibilities to fulfill. 26.2% of male and 25.6% of female are at neutral about supervisor makes fair and balanced decisions. 22.0% male and 25.6% of female are also neutral about that their supervisor can be trusted. 20.9% male are agreeing and 23.0% females are at neutral about that their supervisors sets an example of how to do things the right way in terms of ethics. 23.3% male and 22.9% females are neutral about that their supervisor would be personally inclined to help them solve problems in their work. 25.8% male and 24.5%

females are disagreeing with that their working relationship with their supervisor is effective. 31.3% male and 40.0% female are neutral about that they had enough confidence in their supervisor that they would defend and justify their decisions if their supervisor were not present to do so. 29.1% male are disagreeing and 31.9% females are neutral about that their supervisors considers their suggestions for change. Then finally, 28.9% male are disagreeing and 29.9% females are neutral about that their supervisor gives a chance to speak their mind in group meetings or informally. (Table 2)



Table 2 : Distribution of Supervisory Behavior and Gender respondents:

Cases	Gender									
	Male					Female				
	Strongly Disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %	Strongly Disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %
My supervisor can make me feel valued?	11.9	19.8	30.2	22.1	16.0	5	18.9	29.4	26.9	13.8
My supervisor gives me undesirable job assignments?	11.3	22.7	30.9	27.5	7.6	14.8	14.2	29.8	25.7	15.5
Supervisor gives me good technical suggestions?	15.9	26.0	31.8	17.5	8.8	15.4	19.8	29.6	20.1	15.1
My supervisor makes my work difficult for me?	6.3	19.9	40.2	22.9	10.7	15.0	21.6	29.8	21.9	11.7
My supervisor shares with me his/her considerable experience and/or training?	15.0	23.5	24.7	22.9	13.9	10.0	20.0	29.8	21.9	18.3
My supervisor provides me with sound job-related advice?	11.3	19.7	29.8	21.0	18.2	16.0	19.9	28.4	23.8	11.9
My supervisor gives me the feeling that I have responsibilities to fulfill?	14.9	25.8	25.2	21.1	13.0	19.2	27.7	23.9	19.8	9.4
My supervisor makes fair and balanced decisions?	12.2	24.1	26.2	23.9	13.6	13.0	22.2	25.1	21.1	18.6
My supervisor can be trusted?	19.2	21.9	22.0	21.8	15.1	17.6	19.8	25.6	21.9	15.1
My supervisor sets an example of how to do things the right way in terms of ethics?	18.2	21.1	20.2	20.9	19.6	19.0	22.9	23.0	20.8	14.3
My supervisor would be personally inclined to help me solve problems in my work?	12.5	19.8	23.3	21.7	22.7	15.0	18.8	22.9	22.4	20.9
My working relationship with my supervisor is effective?	19.7	25.8	22.5	18.8	13.2	11.9	20.1	24.5	24.0	19.5
I have enough confidence in my supervisor that I would defend and justify his/her decisions if he or she were not present to do so?	13.1	29.1	31.3	20.9	5.6	5.0	18.1	40.0	21.9	15
My supervisor considers my suggestions for change?	19.3	29.1	25.5	22.6	3.5	15.5	21.9	31.9	22.9	7.8
My supervisor gives a chance to speak your mind in group meetings or informally?	10.0	28.9	26.9	21.0	13.5	11.9	26.0	29.9	25.1	7.1

In the case of satisfaction with welfare items provided by the management to the workers the results are insignificant and directing to the dilemma of relations of management and labor. In the results, 29.9% male and 33.3% females are strongly disagreeing with the

statement that they are satisfied with the housing welfare facilities provided by the management. Similarly, 40.8% male and 33.9% female are neutral about that they are satisfied with the medical welfare facilities and 34.7% male and 30.0% females are disagreeing with that they

are satisfied with canteen welfare facilities provided by the management. 29.9% male and 25.9% females are neutral about the transport welfare facilities provided to them by their management. 47.9% male and 50.5% females are strongly agree with that the other facilities like low cost education for their children and on-job training are essential for workers. 44.1% male and 33.8% females are agreeing that after retirement benefits like pension funds, employee old age benefits had substantial impact on employee's productivity. 41.1% male and 41.9% females are neutral about that their company maintains benefits that compare well to other companies in hits area. Table (3)

are agreeing that after retirement benefits like pension funds, employee old age benefits had substantial impact on employee's productivity. 41.1% male and 41.9% females are neutral about that their company maintains benefits that compare well to other companies in hits area. Table (3)

*Table 3 :* Distribution of Satisfaction with welfare Items and gender respondents:

Cases	Gender									
	Male					Female				
	Strongly Disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %	Strongly Disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %
are you satisfied with the housing welfare facilities provided by the management	29.9	25.1	22.0	12.9	10.1	33.3	23.4	20.0	16.5	6.8
are you satisfied with the medical welfare facilities provided by the management	18.8	23.6	40.8	11.9	4.9	15.1	21.7	33.9	19.0	10.7
are you satisfied with the canteen welfare facilities provided by the management	13.8	34.7	30.9	11.0	9.6	20.0	30.0	20.0	12.8	17.2
are you satisfied with the transport welfare facilities provided by the management	25.0	18.9	29.9	15.7	10.5	21.1	17.9	25.9	16.6	18.5
Other facilities can such as low cost education for children and on-job training are essential for workers	5.5	9.0	16.9	20.7	47.9	2.9	6.7	19.9	20.0	50.5
After-retirement benefits like pension funds, employee old age benefit have substantial impact on employee productivity	5.0	2.5	23.3	44.1	25.1	10.0	15.0	21.9	33.8	19.7
Your company maintains benefits that compare well to other companies in hits area.	2.5	13.8	41.1	25.0	17.6	10.0	10.0	41.9	22.9	15.2

## V. STATISTICAL VALUES

In the cases regarding wage satisfaction of labor, in results there is no association. Which shows that male and female both respondents are on same side that they are unsatisfied to their employers in case of wages. The following table shows the statistical figures of cases/ questions related to the wage satisfaction. In which it's cleared that the results are no association because P-Value of all cases is greater than 0.05 (table 4).

<i>Table 4 :</i> There is no association between gender and wage satisfaction		
Cases	Chi-square value	P-value
Do you think that increase in wages can improve worker's satisfaction?	4.518	0.340
Do your wages compare with other public sector plants in Pakistan	1.170	0.760
do your wages compare with those in similar private sector plants	2.733	0.603
Same wage rate should be adopted for old & new employees	4.087	0.394
Do your salary is fair for your responsibilities	5.024	0.285

do your salary fulfills your expenses	2.543	0.637
Are you satisfied with your present wages	1.170	0.760
Wage rate should be changed according to time	2.733	0.603
Wages are the most important element for raising employee performance	4.087	0.394

Under the head of supervisory behavior, in results there is no association which means that the male respondents and female respondents both are unsatisfied or at neutral at the edge of supervisory behavior. The table 5 shows the chi-square and P-value of the cases in which the P-value is greater than 0.05.

*Table 5 :* There is no association between gender and supervisory behavior

Cases	Chi-square value	P-Value
My supervisor can make me feel valued?	5.024	0.285
My supervisor gives me undesirable job assignments?	1.173	0.603
Supervisor gives me good technical suggestions?	3.346	0.502
My supervisor makes my work difficult for me?	3.198	0.525
My supervisor shares with me his/her considerable experience and/or training?	0.290	0.962
My supervisor provides me with sound job-related advice?	7.180	0.127
My supervisor gives me the feeling that I have responsibilities to fulfill?	1.942	0.746
My supervisor makes fair and balanced decisions?	2.645	0.619
My supervisor can be trusted?	7.090	0.131
My supervisor sets an example of how to do things the right way in terms of ethics?	2.592	0.628
My supervisor would be personally inclined to help me solve problems in my work?	2.645	0.619
My working relationship with my supervisor is effective?	6.098	0.128
I have enough confidence in my supervisor that I would defend and justify his/her decisions if he or she were not present to do so?	1.049	0.902

My supervisor considers my suggestions for change?	1.387	0.846
My supervisor gives a chance to speak your mind in group meetings or informally?	3.378	0.497

In the case of welfare items, in results there is no association which are directing to the dilemma of unsatisfaction of labor force to the welfare items and male and female respondents both are on the same way of sharing information. The table 6 is showing the chi-square and P-value of the cases which are greater than 0.05.

*Table 6 :* There is no association between gender and welfare items

Cases	Chi-Square Value	P-Value
are you satisfied with the housing welfare facilities provided by the management	4.061	0.398
are you satisfied with the medical welfare facilities provided by the management	5.286	0.259
are you satisfied with the canteen welfare facilities provided by the management	3.843	0.428
are you satisfied with the transport welfare facilities provided by the management	4.996	0.288
Other facilities can such as low cost education for children and on-job training are essential for workers	6.003	0.199
After-retirement benefits like pension funds, employee old age benefit have substantial impact on employee productivity	2.543	0.637
Your company maintains benefits that compare well to other companies in this area.	2.861	0.581

## VI. CONCLUSION AND RECOMMENDATIONS

According to the responses from the respondents of the both organizations it is cleared that the labor relation with their management is still weak. In this study we discover that the labor of the organization is unsatisfied with their management regarding wages for their work, the behavior of the supervisors at work place and the welfare items provided to the staff for their well being of them. In this dilemma of unsatisfied labor in the organization, caused the low efficiency in the productivity of the companies and the low efficient produced products tends towards the unsatisfaction of

the customers. So the three elements on which the whole study is consisted are the way to improve the work efficiency of labor and staff at work place and the efficient work produce a quality products for company's customer and then only company can earn above average profit. There are some ways to satisfy the labor and to make a strong relationship between labor and management.

Firstly, the management and the labor force should be the part of each like the labor is the part of management and the management should be the part of the labor. It's means that management should fulfill the needs of the labor force like increase in the wages, training and development program regarding behavioral aspects of both the labor and supervisors and every labor person should be awarded by incentives according to their performance on monthly basis if possible or on quarterly basis must be. If this way is going to be adopted by these two organizations then they don't need interfere of the government for the any steps.

At second, there is a need of government interfere to implement the law of labor appropriately. In Pakistan the mostly of the organizations are, just for their own benefits, skipping the rights of labor which tends towards labor unions. But the company in which the rights of labor force are fulfilled and they are getting the benefits right according to the labor law, is going to be succeeded because there is no labor union and working efficiency of the labor force is higher then the other companies.

Finally, the companies should focus on the labor law to improve the efficiency of the workers to get the high quality products and for this reason the companies should satisfy to their workers by an increase in the wages, to provide them welfare items full compensation and specially the supervisory behavior at workplace should be better because one word of an supervisor can make his sub-ordinates efficient or can dishoards. So the company should focus on behavioral trainings of the both the supervisor and the labor force because there is need of improvement of both side. When the labor and management became a part of both, definitely the companies will succeeded in his area of expertise.

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## Materialistic Thoughts among People

By Syed Atif Ali, Muhammad Ramzan, Amir Razi, Huda Khan & Itrat Fatima

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**Abstract** - The focus of this research study is to see the level of materialistic thoughts among the people. Now people value to extrinsic things rather than intrinsic. Enjoyment, physical pleasure, material possessions and comfort are now becoming necessities of life. This study was conducted in January-June 2010. To analyze the materialistic thoughts among people five variables money, poverty, personal happiness, advertisement and culture were used as measurement tools to find materialistic thoughts among housewives, students, businessmen and salary person. Questionnaire was developed which includes demographic portion which was with some open and some close ended questions. Questions related to variables were all close ended. Stratified random sampling technique was used. Sample size was of 200. In results, there was no association between money, advertisement, poverty, culture, personal happiness with Study group. The materialistic thought is increasing among people due to two factors money and advertisement. Under recommendation it's said that all that glitters is not gold so we should not give importance to luxurious things.

**Keywords** : *Materialism, Materialistic Person, Money, Advertisement, Poverty, Culture, and Personal Happiness.*

**GJMBR-A Classification:** *FOR Code: 150311 JEL Code: J53*



*Strictly as per the compliance and regulations of:*





# Materialistic Thoughts among People

Syed Atif Ali<sup>α</sup>, Muhammad Ramzan<sup>σ</sup>, Amir Razi<sup>ρ</sup>, Huda Khan<sup>ω</sup> & Itrat Fatima<sup>¥</sup>

**Abstract** - The focus of this research study is to see the level of materialistic thoughts among the people. Now people value to extrinsic things rather than intrinsic. Enjoyment, physical pleasure, material possessions and comfort are now becoming necessities of life. This study was conducted in January-June 2010. To analyze the materialistic thoughts among people five variables money, poverty, personal happiness, advertisement and culture were used as measurement tools to find materialistic thoughts among housewives, students, businessmen and salary person. Questionnaire was developed which includes demographic portion which was with some open and some close ended questions. Questions related to variables were all close ended. Stratified random sampling technique was used. Sample size was of 200. In results, there was no association between money, advertisement, poverty, culture, personal happiness with Study group. The materialistic thought is increasing among people due to two factors money and advertisement. Under recommendation it's said that all that glitters is not gold so we should not give importance to luxurious things.

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## I. INTRODUCTION

Man is hasty and greedy by nature. He always remains in search of better to best. His appealing urge to get the best for him has made materialistic, making him a machine with no emotions and feelings. He is only interested in making more and more money irrespective of religious and moral values. The man of today is a perfect example of materialism. We hardly realize the fact our desires are never-ending. The more we get, the more we want. The more we have the more we want. Material luxurious objects have sadly failed to give us true happiness and peace. It goes without saying that luxurious life without peace of mind and inner happiness is of no significance and value. (Hussain,k.) "We have found that material possessions don't provide as much lasting happiness as the search of life experiences. The mistake we can sometimes make believes that pursuing material possessions will gain status and admiration while

also improving our social relationships. It seems to have exactly the opposite effect. Trying to have a happier life by the acquisition of material possessions is probably not a very wise decision. Not just our research, but a lot of other research has found that people who are materialistic acquire many mental health costs and social costs, they're less happy and more prone to depression" Van Boven said. (Boven,L.V.2010).

Money can't buy you love. It can't buy you happiness either. According to an article on CNN, "by and large, money buys happiness only for those who lack the basic needs". (Burns.G.) Materialism has had its grip on humanity since the introduction of man to this planet. Every culture, country, and generation has been plagued with the need for material goods. Materialism has turned child against parent, wife against husband, and husband against wife. Children confront their parents on "why can't we afford this? A culture full of spoiled children breeds spoiled and irresponsible adults. Showing our children reality and not "reality" television will benefit them and our culture. (Huffan,G.W.) Overall they have shown that aging is a part of an individual's culture and like other parts of culture, it has an important influence on the individual's world view and subsequent behavior (Graham 1981; Webster and Beatty 1997).(Wei,Y.) The media in general and advertising in particular show images of materially well-off consumers, those consumers exposed to heavy doses of advertising and other media would overestimate the material well-being of typical consumers (see Belk and Pollay 1985a,b and Friedman 1985 for the depiction of material themes in advertising and media).(Richins,M.L.1987) I want", "I need", "I must have" are the three phrases heard a little more than seldom from your typical American teenager. (Romaniuk,O) Advertising as a major social event expresses a key change in values, beliefs, behavior and buying patterns of the peoples which influence the lifestyles of people (Polly and Mittal, 1993). (Usman,M.2010.) Advertising also encourages materialism in which material goods and money is conceived important for personal happiness and social progress as compared to intellectual or spiritual concerns was increasing amongst children and adults. (Abiden.Z.2010.) Kasser argues that when people turn to material things to feel better, they compound the problem, because they seek experiences that "don't do a very good job of meeting their psychological needs." Studies show that poor people who emphasize materialistic goals are especially likely to be unhappy,

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while in some studies, materialistic rich people show fewer ill effects, most probably because they are meeting more of their goals. (Goldberg, C.2008.)

Our love of money is evident too in our attitudes toward wealth and poverty. Although 92 percent believe that the condition of the poor is a serious social problem, our hearts are fundamentally with the rich. (Wuthnow, R.1993.) Early research conducted by Ward and Wackman (1971) suggested that materialism was the result of individuals viewing material goods and money as a path to personal happiness and social progress. Ger and Belk (1996) examined the concept of cross-cultural materialism by using undergraduate and graduate respondents from 12 countries. It was concluded that variables such as dramatic cultural or social change might well lead to higher levels of materialism. (Parker, R.S.) Materialistic persons seek products that show the success and status they wish to be observed by others and themselves (Richins et al. 1992) (Bernard,R.J. 2009.) The urge to lead an

extravagant life. Personal satisfaction and greed are the most important aspects of life of the society driven by materialism. Materialism promotes many other negative feelings as well like lust, selfishness, jealousy, sense of hopelessness, etc. People are forgetting their moral values and often fail to understand the distinction between right choices and the wrong ones. The only thing that matters is good quality life and false comforts. (Materialism in society).

## II. METHODOLOGY

This study was conducted from January to June 2010. One questionnaire was developed. The sample size of our study is 200. The questionnaire consists of 27 questions. All questions were close ended. We have distributed our sample into four categories. The stratified random sampling technique was used for making four stratum, which consists of Housewives, Businessmen, Salaried person and Students.

## III. RESULTS

*Table 1* : Distribution of effects of money on people

Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Is money first priority in life now?	11(5.5%)	30(15.0%)	32(16.0%)	60(30.0%)	67(33.5%)	200(100.0%)
Can money satisfy all needs of life?	33(16.5%)	38(19.0%)	38(19.0%)	62(31.0%)	29(14.5%)	200(100.0%)
Is money sign of high status now?	9(4.5%)	11(5.5%)	15(7.5%)	40(20.0%)	125(62.5%)	200(100.0%)
Can money give respect?	29(14.5%)	31(15.5%)	42(21.0%)	51(25.5%)	47(23.5%)	200(100.0%)
Is money key to success?	23(11.5%)	39(19.5%)	47(23.5%)	56(28.0%)	35(17.5%)	200(100.0%)
Can money change our lifestyle?	9(4.5%)	11(5.5%)	17(8.5%)	54(27.0%)	109(54.5%)	200(100.0%)
Is the unfair distribution of money leading us towards materialism?	12(6.0%)	17(8.5%)	45(22.5%)	56(28.0%)	70(35.0%)	200(100.0%)
Is money a solution of every problem?	41(20.5%)	64(32.0%)	37(18.5%)	35(17.5%)	23(11.5%)	200(100.0%)

33.5% respondents strongly agree and 15.0% disagree that money is first priority in life now. 31.0% respondents agree and 19.0% disagree that money can satisfy all needs of life. 62.5% strongly agree and 5.5% disagree that money is sign of high status now. 25.5% respondents agree and 15.5% disagree that money can give respect. 28.0% respondents agree and 19.5%

disagree that money is key to success. 54.5% respondents strongly agree and 5.5% disagree that money can change our lifestyle. 35.0% respondents strongly agree and 8.5% disagree that the unfair distribution of money is leading us towards materialism. 17.5% respondents agree and 32.0% disagree that money is solution of every problem.

*Table 2 :* Distribution of effects of advertisement on people

Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Do advertisements Show glamour?	3(1.5%)	15(7.5%)	30(15.0%)	85(42.5%)	67(33.5%)	200(100.0%)
Do advertisements motivate for luxurious life?	8(4.0%)	19(9.5%)	40(20.0%)	72(36.0%)	61(30.5%)	200(100.0%)
Can our lifestyles be changed by advertisements?	14(7.0%)	38(19.0%)	53(26.5%)	63(31.5%)	32(16.0%)	200(100.0%)
Does excess of advertisement have negative impact on life?	13(6.5%)	30(15.0%)	49(24.5%)	60(30.0%)	48(24.0%)	200(100.0%)
Does charming advertisements attract you?	7(3.5%)	19(9.5%)	40(20.0%)	76(38.0%)	58(29.0%)	200(100.0%)

42.5% respondents agree and 7.5% disagree that advertisements show glamour. 36.0% respondents agree and 9.5% disagree that advertisements motivate for luxurious life. 31.5% respondents agree and 19.0% disagree that lifestyle can be changed by advertisements. 30.0% respondents agree and 15.0%

disagree that excess of advertisement have negative impact on life. 38.0% respondents agree and 9.5% disagree that charming advertisements attract.

*Table 3 :* Distribution of effects of poverty on people

Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Is poverty creating wish for charming life?	11(5.5%)	19(9.5%)	51(25.5%)	74(37.0%)	45(22.5%)	200(100.0%)
Is poverty influencing mind towards glamour?	11(5.5%)	32(16.0%)	65(32.5%)	63(31.5%)	29(14.5%)	200(100.0%)
Is poverty creating greed for wealth?	6(3.0%)	23(11.5%)	41(20.5%)	76(38.0%)	54(27.5%)	200(100.0%)
Are only poor people materialistic?	44(22.0%)	59(29.5%)	60(30.0%)	31(15.5%)	6(3.0%)	200(100.0%)

37.0% respondents agree and 9.5% disagree that poverty is creating wish for charming life. 31.5% respondents agree and 16.0% disagree that poverty is influencing mind towards glamour. 38.0% respondents agree and 11.55 disagree that poverty is creating greed for wealth. 15.5% respondents agree and 29.5% disagree that only poor people are materialistic.

*Table 4* : Distribution of effects of personal happiness on people

Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Does personal happiness means more?	4(2.0%)	24(12.0%)	50(25.0%)	72(36.0%)	50(25.0%)	200(100.0%)
Can personal happiness create satisfaction in life?	5(2.5%)	21(10.5%)	31(15.5%)	74(37.0%)	69(34.5%)	200(100.0%)
Is wealth source of personal happiness?	14(7.0%)	42(21.0%)	52(26.0%)	71(35.5%)	21(10.5%)	200(100.0%)
Can materialism create personal happiness?	25(12.5%)	53(26.5%)	59(29.5%)	43(21.5%)	20(10.0%)	200(100.0%)
Does personal happiness makes you selfish?	24(12.0%)	42(21.0%)	44(22.0%)	58(29.0%)	32(16.0%)	200(100.0%)

37.0% respondents agree and 10.5% disagree that personal happiness can create satisfaction in life. 35.5% respondents agree and 21.0% disagree that wealth is source of personal happiness. 21.5% agree

and 26.5% disagree that materialism create personal happiness. 29.0% respondents agree and 21.0% disagree that personal happiness makes us selfish.

*Table 5* : Distribution of effects of culture on people

Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Is our culture depicting materialism?	8(4.0%)	29(14.5%)	66(33.0%)	68(34.0%)	29(14.5%)	200(100.0%)
Is our culture moving towards modernism?	12(6.0%)	26(13.0%)	31(15.5%)	67(33.5%)	64(32.0%)	200(100.0%)
Is there any effect of culture on our lives?	10(5.0%)	18(9.0%)	37(18.5%)	65(32.5%)	70(35.0%)	200(100.0%)
Is culture negatively promoting materialistic thoughts?	9(4.5%)	30(15.0%)	72(36.0%)	62(31.0%)	27(13.5%)	200(100.0%)
Is our culture rigid to follow the materialistic norms?	15(7.5%)	47(23.5%)	81(40.5%)	40(20.0%)	17(8.5%)	200(100.0%)

34.0% respondents agree and 14.5% disagree that our culture is depicting materialism. 33.5% respondents agree and 13.0% disagree that our culture is moving towards modernism. 35.0% respondents strongly agree and 9.0% disagree that there is an effect

of culture on our lives. 31.0% respondents agree and 15.0% disagree that our culture is negatively promoting materialistic thoughts. 20.0% agree and 23.5% disagree that our culture is rigid to follow that materialistic norms.

#### IV. ANALYTICAL RESULTS

##### a) Chi-square test

**Table 1 :** Overall comparison of money and study groups

Study group	Money				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Housewife	2.0625%	2.9375%	2.5625 %	4.5625 %	6.375 %
Business-man	1.9375%	2.375%	2.125 %	3.8125 %	4.75%
Salary person	3.625%	5.125	5.625 %	8.5625 %	7.5625 %
Student	2.8125%	4.625	6.75%	8.9375 %	12.875 %

The value of chi-square test is 24.345 and p value is 0.06 which is greater than 0.05, so there is insignificant difference between money and study groups.

**Table 2 :** Overall comparison of advertisements and study groups

Study group	Advertisement				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Housewife	1%	2.2%	4.5%	7.1%	3.7%
Businessman	1%	1.2%	3%	5.1%	4.7%
Salary person	1.8%	4.4%	7.4%	10.2%	6.7%
Student	1.7%	3.8%	6.3%	12.7%	11.5%

The value of chi-square test is 26.23 and p value is 0.13 which is greater than 0.05, so there is insignificant difference between advertisements and study groups.

**Table 3 :** Overall comparison of poverty and study groups

Study group	Poverty				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Housewife	2.25%	3.25%	4.625%	5.375 %	3%
Business-man	1.375%	2.5%	3.5%	5.25%	2.375%
Salary person	2.625%	5.25%	8.875%	9.875 %	3.875%
Student	2.75%	5.625%	10.125 %	10%	7.5%

The value of chi-square test is 11.141 and p value is 0.517 which is greater than 0.05, so there is insignificant difference between poverty and study groups.

**Table 4 :** Overall comparison of personal happiness and study groups

Study group	Personal happiness				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Housewife	1.3%	4.9%	4.6%	6%	2.7%
Businessman	1.3%	2.3%	3.5%	5.4%	2.5%
Salary person	2.3%	4.9%	8%	9.5%	5.8%
Student	2.4%	6.1%	7.4%	11%	8.1%

The value of chi-square test is 16.331 and p value is 0.177 which is greater than 0.05, so there is insignificant difference between personal happiness and study groups.

**Table 5 :** Overall comparison of culture and study groups

Study group	Culture				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Housewife	1.2%	3.3%	5%	5.5%	3.5%
Businessman	.6%	1.7%	3.7%	5.6%	3.4%
Salary person	2.4%	4%	9.4%	9.3%	5.4%
Student	1.2%	6%	10.6%	9.8%	8.4%

The value of chi-square test is 19.242 and p value is 0.083 which is less than 0.05, so there is insignificant difference between culture and study groups.

#### V. CONCLUSION

Materialism is that everything which has physical existence is important in life. Materialistic thought create greed for luxuries in life. Researches show that people are always attracted towards glittering things. People are giving preference to material things so unhappiness, jealousy, greed, depression, aggressiveness, social anxiety is increasing and they start using people for their means. Greed of money, motivational effects of advertisements, problem of poverty, wish of personal happiness and negative norms depicting culture have influenced the people particularly teenagers. The results of our study show that money, advertisement, culture, poverty and personal happiness have insignificant relationship with study groups.

#### VI. RECOMMENDATIONS

To avoid and eliminate materialistic thoughts from life we should:

- Think positive
- Believe in spirituality
- Give more importance to relations than luxuries
- Don't be the part of wrong norms in the culture instead, change it



- Don't think much about the adds on television because "all that glitter is not gold"
- Material poverty is not poverty real poverty is of mind so be pure and honest in your intentions and goals.

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# Perceived Enforcement of Informal Buyer-Supplier Contractual Arrangements in Ugandan Small and Medium Enterprises (SMES)

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**Abstract** - SME buyers tend to avoid formal binding contractual arrangements with suppliers of resources, a situation which creates operational and technical difficulties and increases transactional costs. Ntayi et al., 2010a using data from Ugandan SMEs have revealed that majority of buyers (83.4%) use oral agreements in their business transactions with suppliers. Only a few (16.6%) were observed to have used written contracts. Whereas informal and oral contracts are enforceable in the Uganda's commercial court, the process of assembling evidence is tedious and takes long (Kiryabwire, 2010). In such circumstances parties privy to the contract end up losing genuine cases unfairly. Even where they are successful, the assessment of damages to be awarded to the victor is a nightmare as business records are non-existent to properly establish the impact of the breach of contract on the business (Kiryabwire, 2010). This happens in SME business relationships which are meant to generate intangible and tangible benefits in short or long terms through the firm's social capital. The purpose of this study is to examine the effects of social capital, organizational amnesia, and moral reasoning on the enforcement behaviors of informal contracts in Ugandan SMEs. This study adopts a triangulation approach and collects data from a sample of 2,228 SMEs.

Results reveal that social capital and organizational amnesia have a significant negative effect on the enforcement behavior of Ugandan buyer-supplier informal contracts. However, the interactive effects of: social capital and moral reasoning; and organizational amnesia and moral reasoning has a positive effect on the enforcement behavior of Ugandan buyer-supplier informal contracts. This has policy and managerial implications which we present and discuss in our paper.

**Keywords** : *Perceived Enforcement, Informal Contractual Arrangements, SME Social Capital, Moral Reasoning, Organizational Amnesia, Uganda.*

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## 1. BACKGROUND

Small and Medium Enterprises (SME's) continue to be constrained by resources despite consensus from organization theory that resources are of critical importance to the survival and competitiveness of firms (Lee et al., 1999). Resource constraints could be attributed to size; a concentration of power in the owner and the informal nature of doing business that characterize SMEs in Uganda (Ntayi et al., 2011a). Due to their nature and size, SMEs use social interactions of human capital to acquire needed resources from supplying firms. Additionally, conditions of competition and the quest for survival and growth, have forced SMEs to seek for resources embedded in their social relations. These social relations with both internal and external stakeholders provide buyer and supplier information related to their credibility, reliability, honesty and integrity. It is against this background that SMEs base their judgments and decisions to obtain supplies and other resources which are required in providing value to their customers. They establish relationships purposefully and employ them to generate intangible and tangible benefits in short or long terms. At the firm's level, the effectiveness of socialization process depends on the firm's social capital.

Social capital refers to "the resources embedded within, available through and derived from the network of relationships possessed by an individual and social group" (Nahapiet, 2000) through its structural and density cognitive aspects (Jansen et al., 2005). Social capital exists between individuals and resides in relations among the nodes to facilitate productive

activity (Coleman, 1988b, p 101; White, 2002). The creation of social capital in SMEs can be particularly beneficial in creating organizational knowledge and attitudes. Extant literature has revealed that social capital has both positive and negative consequences. It facilitates or inhibits innovative and risk-taking behavior, shapes relational business behaviour, provides networks, supplier information, supplier assessments and other resources that are of value to cooperate members (Westlund and Bolton, 2003). Indeed Othman and Hashim (2004) have noted that social capital resources are mobilized in purposive actions. In procurement related transactions, where research on social capital is sparse, the concept of social capital has been observed to facilitate inter-unit and inter-firm resource exchange (Hansen, 1998) and strengthen buyer-supplier relations (Baker, 1990; Gerlach, 1992; Uzzi, 1997). Findings in social capital research concerning "closed networks," reveal that norms and social relations conducive to getting work done are more easily developed in workplaces (Coleman, 1990). This idea is similar to Ntayi et al., (2010a)'s findings suggesting that the absence of proper contract records, proper book keeping and financial records in SMEs, despite their strategic importance in decision making process is partially calculated. These findings point towards a possible link between social capital and moral reasoning. The moral reasoning associated with this premeditated behaviour is that of insulating the resource constrained SME from losing resources, thereby facilitating business survival. Additionally, there is a general feeling that the self interests and aspirations of the owner managers must be protected. We suspect that the SME moral reasoning is based on conformity to social norms and expectations that exist in the workplace, although there is paucity of research to confirm this view.

Anecdotal evidence from the Ugandan SMEs reveals that, generally, there is low recognition of the ethical issues involved in a buyer-supplier informal contractual arrangement. This may be attributed to the fear of the aggressive tax collection methodology employed by the Uganda Revenue Authority (URA) and the current litigious environment creating an economic incentive for "organizational amnesia". Organizational amnesia refers to the systematic destruction of all unneeded personal notes and documents at regular intervals. The thinking behind this policy is that, in the event of litigation or criminal prosecution, no document should exist in writing that could be used against the SME buyers and/or sellers (Conklin, 2001). This is a tricky state of affairs for Ugandan SMEs, since a stream of organization theory research on contracts from organizational learning literature posits that the design, development, implementation, monitoring and enforcement of contractual provisions are a result of an

organizational learning process (Smith and King, 2006). Contracts are both inputs to learning processes and outcomes of learning. As inputs, contracts may assist organizations and courts of law in developing incremental changes in their structure. As outcomes, contracts are routines that are learned through experience with relational contracting and that contribute to organizational inertia (Smith and King, 2006, p. 33). Absence of relevant information on business transactions affects the quality of buyer-supplier contracts developed and may affect contract enforcement.

SME buyers tend to avoid formal binding contractual arrangements with suppliers of resources, a situation which creates operational and technical difficulties and increases transactional costs. Ntayi et al., (2010b) using data from Ugandan SMEs have revealed that majority of buyers (83.4%) use oral agreements in their business transactions with suppliers. Only a few (16.6%) use written contracts. Whereas informal and oral contracts are enforceable in the Ugandan commercial court, the process of assembling evidence is tedious and takes long (Kiryabwire, 2010). In such circumstances parties privy to the contract end up losing genuine cases unfairly. Even where they are successful, the assessment of damages to be awarded to the victor is a nightmare as business records are nonexistent to properly establish the impact of the breach of contract on the business (Kiryabwire, 2010). Othman and Hashim (2004) have revealed that research specifically examining the relationship between social capital and organizational amnesia is nonexistent. They aver that the creation of social capital will be an important element in overcoming organizational amnesia. The purpose of this study is to examine the levels of social capital, organizational amnesia, and moral reasoning of SMEs in Uganda. Additionally we examine the relative effect of these variables on the enforcement behaviors of informal contracts in Ugandan SMEs. This study adopts a conceptualization presented in figure 1.

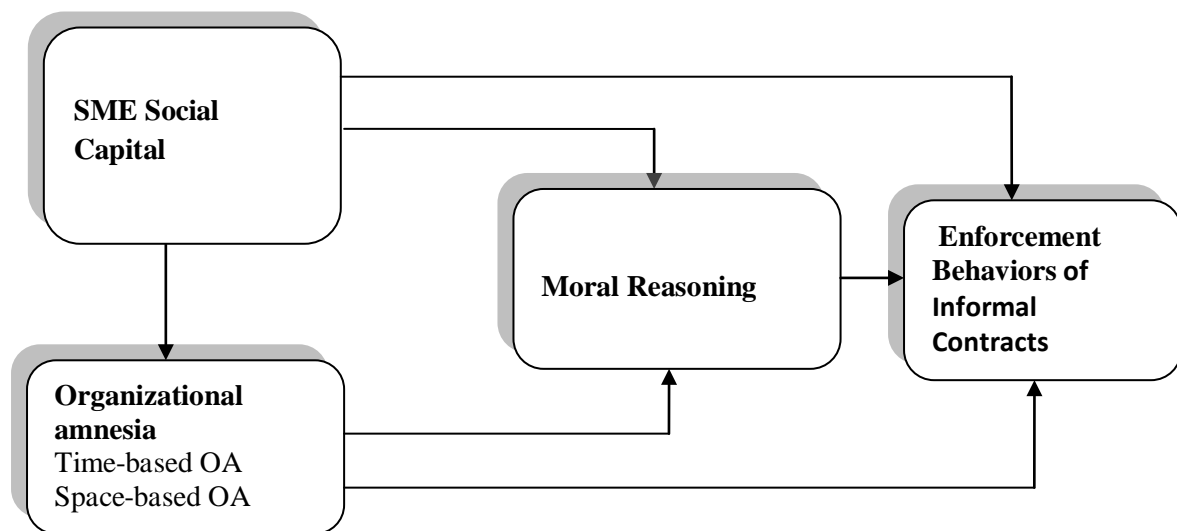
## II. CONCEPTUALIZATION

Since most SMEs are family businesses, scholars suggest that high levels of family influence could have a negative effect on the social capital of the firm, and in turn on its performance (Adler and Kwon, 2002; Arregle et al., 2007; Leana and Van Buren, 1999). Some scholars argue that in an effort to maintain family ties, family members could reduce their ability of maintaining strong social ties outside the family (Barney et al., 2003), and that high firm social capital could lead to the problems associated with lack of innovation as individuals get rooted in time honored practices, thereby overlooking potential sources of useful information (Leana et al., 1999). This situation is potentially

dangerous for moral reasoning, organizational learning, organizational memory and organizational amnesia. Contract enforcement-managers with moral values would tend to apply reason and fulfill their contractual obligations. This suggests that in the event of any contractual disagreements, use of formal dispute

resolution mechanism will be pursued. The purpose of this study is to examine the levels and interrelationships of social capital, organizational amnesia, and moral reasoning and enforcement behaviors of informal contracts in Ugandan SMEs. This study adopts a conceptualization presented in figure 1.

*Figure 1 :* Relationship between social capital, organizational amnesia, personal values, emotions, moral reasoning, and enforcement behaviors of informal contracts within SMEs



### III. LITERATURE REVIEW AND THE DEVELOPMENT OF THE CONCEPTUAL MODEL

#### *a) Social capital, moral reasoning and enforcement behavior of contracts*

Social capital is a multidimensional construct composed of structural, relational and cognitive aspects which allow the exchange of resources among individuals (Nahapiet and Ghoshal, 1998). The structural dimension of social capital, concerns the existence of connections among individuals and the structure of the social network in which relationships are embedded. Relationships occur between collaborating partners like buyers and suppliers. The relational dimension of social capital refers to the quality of those connections. It addresses the levels of mutual trust and reciprocity that exist among relationships. The cognitive dimension of social capital is related to attributes that facilitate the common understanding of the social context and reflects the levels of shared understanding and goals. A review of extant literature reveals that there is a connection between social capital and moral reasoning. Moral reasoning is the cognitive process of having moral sensitivity to a situation (interpretation of the situation, being aware of how various actions would affect parties concerned, imagining cause-effect relationships, and being aware of a moral problem) and having moral

judgment to a situation (judging which action would be most justifiable in a moral sense) (Rest et al., (1999), page 101). Kohlberg (1981) argued that moral reasoning is a function of a person's level of moral development, which is an enduring component of a person's cognitive makeup which may influence attitudes and behaviors. Piaget (1973) revealed that behavior reflects a conscious state of mind and thinking through a dilemma or a problem. Moral reasoning forms the basis for ethical behavior and decision making (Candee and Kohlberg, 1987; Kohlberg, 1987). From the ongoing we hypothesize that, H1: Social capital and moral reasoning are significantly positively correlated; H2: Moral reasoning affects SME buyer-supplier informal contract enforcement behaviors positively; H3: Social capital affects SME buyer-supplier informal contract enforcement behavior; H4: Social capital interacts with moral reasoning to affect SME buyer-supplier informal contract enforcement behavior.

Moral reasoning refers to the reasoning process by which human behaviors, institutions, or policies are judged to be in accordance with or in violation of moral standards. Moral reasoning is characterized by moving along a pre-conventional to a post-conventional level of thinking. At the pre-conventional level of thinking, SME employees and employers would ordinarily obey and respect rules and norms for a solution. Individuals, who are dominated by the post-conventional thinking, tend to



weigh and consider abstract principles and also take more perspectives into consideration. As noted by Rest et al., (1999) the development of moral reasoning is a shifting distribution in which more primitive ways of thinking are gradually replaced by more complex ways of thinking. This primitive or complex form of thinking has been conceptualized by Rest et al., (1999) as moral schemas. These schemas or frameworks are a result of accumulated socio-moral experiences. Drawing from the works of Kohlberg (1967), we identify three moral schemas of personal interest schema, the maintaining norms schema, and the post-conventional schema that forms a developmental hierarchy.

"The personal interest schema relies on an egocentric and interpersonal perspective in which the individual focuses on the personal stakes that the actor has in the dilemma and its consequences. It also emphasizes concern for others with which the person has a close relationship. The maintaining norms schema, usually emerging in adolescence, is characterized by perception of a need for a society-wide system of cooperation and the uniform application of laws and social norms, as well as a duty-based, authoritarian orientation. The post conventional schema, which is the most complex of the three schemas, is characterized by the core belief that moral obligations are to be based on shared ideals, which are reciprocal and are open to debate and tests of logical consistency, and on the experience of the community (Endicotta, Bockb and Narvaez, 2003, p.406)".

Ntayi et al., (2010b) have revealed signs of personal interest schema commonly displayed by buyers and suppliers in Uganda. For example in almost all transactions, payments to suppliers were delayed by the buyers for selfish or egoistic reasons. This resulted in the most frequent illegal actions of cutting corners on quality control, cover ups, inflated costs, outright deceit, dishonesty, cheating, shirking contractual obligations and violating an unwritten understanding with a supplier. Excessive pressure to deliver results without any down or timely payments from buyers was significantly correlated with willingness to compromise ethics to cushion SMEs from financial shocks. This was surprising in situations where parties to the contract have the duty to comply, duty to disclose, duty not to misrepresent and duty not to coerce.

Literature has revealed that sometimes parties to the contract act irrationally when under the influence of fear or emotional stress. When a seller takes advantage of the buyer's fear or emotional stress to extract consent to an agreement that the buyer would not make if the buyer were thinking rationally, the seller is using duress or undue influence to coerce, because contracts have to be entered into freely, the seller, has the duty to refrain from exploiting emotional states that

may induce the buyer to act irrationally against his or her own best interests. For similar reasons the seller also has the duty not to take advantage of the gullibility, immaturity, ignorance, or any other factors that reduce or eliminate the buyers ability to make free rational choices. It can be averred that the principles of buyer-supplier ethics as enshrined in the PPDA Act (2003) are interrelated to moral reasoning and guide in decision making (Beauchamp and Childress, 1989; Beauchamp, 2003). Moral reasoning of SME managers when confronted with moral dilemma has not been studied extensively in a developing world context. SME owner managers make decisions that can develop the economy. When confronted with ethical and unethical decisions, a moral dilemma arises. Several unethical events and failure to fulfill contractual obligations across the country have put business development in Uganda at a risk and jeopardize the investment climate. Research in moral reasoning of SME managers in Uganda is needed to understand and solve the growing problem of ethics. Extant literature has shown that the relationship between a business firm and its customers is essentially a contractual relationship and the firm's moral duties to the customer are those created by this contractual relationship. From the above discussion we hypothesize that, H5: Moral reasoning of SME buyers and suppliers is characterized by the personal interest schema.

#### *b) Social capital, organizational amnesia and enforcement behavior of buyer-seller informal contracts*

Literature has demonstrated that social interactions within an organization, provide a platform for passing on explicit (objectified) and tacit (collective) organizational knowledge (Spender, 1996). Organizational knowledge is embedded in the forms of social tacit experiences and collective (relation specific) institutional practices (Brown and Duguid, 1991). As articulated by Spender and Grant (1996, p. 8) "...knowledge which is embodied in individual and organizational practices cannot be readily articulated. Because of its uniqueness, tacit knowledge is created and shared through interactive conversation, shared experience, learning by doing, training or exercising (Herrgard, 2000). It is indigenous wisdom that could be transferred from our minds to other holders through social capital- continuous interactions and relationships'. Ghobadian and Gallear (1997) and Wong and Aspinwall (2004) have noted that SMEs employ individuals who are connected to networks and share common beliefs, norms, and values. Their thinking is not expected to vary from the thinking of owner managers. Should there be a variation in the philosophical mindset of the SME owner managers and employees, the SME employee is forced to exit leaving behind no retrievable records.



As revealed by Moran (1999), staff in SMEs need appropriate and up to date knowledge, need to know what their colleagues know and need ways of remembering what they know. In SMEs, this is partially done using social capital and/or other informal networks. It is on the basis of these informal networks that SMEs base their informal dealings and contracts. The construct of social capital has gained wide popularity and acceptance among researchers in organization studies due to its ability to explain individual network interactions within (Burt, 1992) and outside the organizations (Fukuyama, 1995; Putnam, 1995). These network interactions are inevitable in a competitive industry where firm's success depends on how well business transactions with stakeholders are managed. The creation of social capital in SMEs can result in social, psychological, emotional and economical benefits (Lin 1986;1999;2000). Socially, social capital represents the resources embedded in the social network between SME employees, managers and SME employees, and buyers and suppliers. For example establishing working relations with new suppliers or vendors may be facilitated if they are met through after-hours connections. This minimizes high transaction costs associated with managing business transactions in a less developed country like Uganda and solve difficulties of enforcing informal contracts. Based on the above discussion we hypothesize that; H6: Organizational amnesia affects SME buyer-supplier informal contract enforcement behavior. H7: Social capital interacts with organizational amnesia to affect SME buyer-supplier informal contract enforcement behavior.

#### IV. METHODOLOGY

##### *a) Research design, sampling and data collection methods*

This study adopted descriptive, quantitative and qualitative research designs. The qualitative research design was associated with interpretative approaches, from the informants' emic point of view, rather than relying on only etically measured discrete, observable behaviour (Maykut and Morehouse, 1994; Frechtling, and Sharp, 1997). This was deemed necessary in order to obtain explanations for enforcement behavior of informal buyer-seller contracts better. The corresponding results of the subjective inquiry are presented as vignettes, cases and causal networks used to explain and discuss the statistics obtained in the quantitative results section of this paper. The argument used was that quantitative methods measure human behaviour "from outside", without accessing the meanings that individuals give to their measurable behaviour. This is what the qualitative inquiry attempted to solve (Mishler, 1986; Punch, 1998; Sekaran, 1992). A qualitative research design allowed these

understandings to be investigated from the informants' point of view (Patton, 1982; Patton, 1990; Patton, 1997; Patton, 1999) by describing experiences and relating them to enforcement behavior of informal contracts. We selected a sample of 2,228 out of the total population of 45,832 SMEs using the average sample size of similar studies in Uganda (Ntayi et al., 2010b). This sample was proportionately distributed under small manufacturing, trade and agro-processing. A sampling frame of SMEs was obtained from Uganda Small Scale Industries Association (USSIA) and Uganda Manufacturers Association (UMA). The respondent firms were selected using stratified and simple random sampling methods. Stratified sampling was used because SMEs are categorized according to industrial grouping and we believe that there could be significant differences in the contractual practices in these three categories. From each stratum a sample representing the population was chosen using simple random sampling. Data was collected using an interviewer administered questionnaire which was made up of both closed and open ended questions to allow deeper understanding of the subject matter. This questionnaire was initially developed and pilot tested to ensure validity and reliability of the measurement scales. Results of the pilot test using a sample of 50 respondents drawn from buyers and suppliers engaged in formal contracts revealed a Cronbach Alpha coefficient of 0.6 and above which was considered satisfactory for this study. Respondents for the main study were only managers and/or individuals working with SMEs who participate in either buying goods and services for the organization or selling goods and services to other organizations and/or trade on a contractual arrangement. Due to the sensitivity of the subject matter under investigation, the researchers assured the respondents of their confidentiality and anonymity. A copy of an executive report was given to them during a dissemination workshop that was organized by the researchers.

##### *b) Measurements*

All item scales for the variables were derived from previous studies where they had been tested for validity and reliability.

Moral Reasoning - Moral reasoning construct was measured using a self-administered questionnaire developed using ideas from Rest's (1986) Defining Issues Test (DIT). This is one of the most well-known measures of moral reasoning in the field of moral psychology (Modgil and Modgil, 1988) which has been utilized in many published studies. The DIT provides a useful contribution to the understanding of an individual's moral reasoning abilities based on dilemmas derived from social issues and is an accurate measure of moral reasoning dealing with personal issues (Fraedrich et al., 1994). Unfortunately, when used in its original format the DIT does not accurately reflect

an individual's moral reasoning in a professional buyer-supplier contractual setting. This is because the DIT does not contain dilemmas which fairly represent business or professional environments (Ponemon, 1990, 1993; Weber, 1990; Trevino, 1992; Elm and Nichols, 1993; Elm and Weber, 1994; Welton et al., 1994). The dilemmas contained in the DIT comprise broad life moral issues, ranging from stealing a drug to saving the life of one's spouse to discontinuing a newspaper for its disturbing social influence. This prompted the researchers to develop a context-specific instrument to help tap and understand better an individual's moral reasoning in professional buyer-supplier settings (Welton et al., 1994). Consistent with Welton et al., (1994) this study applied a self-designed test which parallels the DIT in design, to tap issues related to moral reasoning levels of SMEs in Uganda. Realistic case dilemmas were preferred because of their ability to elicit representative reasoning processes. Fredrickson (1986) has observed that case dilemmas generate interest and create involvement in the respondent. The DIT consisted of moral dilemmas relating to main moral duties of buyers and sellers. In general, these included complying with the terms of the contract and the secondary duties of disclosure, avoiding misrepresentation and avoiding use of duress and undue influence. This instrument comprised of twelve business and buyer-supplier contractual dilemmas at the pretest level, which were reduced to six which were adopted for the main study. These were:

- (i) The "compliance" dilemma considers whether an SME manager of a buying firm should accept a liability for failure to live up to the promises made by his/her staff (the seller) to the buyer when the manager knows very well that the seller cannot deliver goods that conforms to the affirmation or promise made. The manager also knows that when he/she accepts, the penalty to the company is heavy and this may result into crippling the company that has not lived up to the express claims made about products.
- (ii) The "disclosure" dilemma considers whether an SME manager should keep records and performance of all transactions with the contracting party and keep such records in the proximity of regulatory bodies with a view of disclosing such information to regulatory bodies if need arises. But the SME manager is also aware that the company has not complied with any of the tax statutory requirements.
- (iii) The "misrepresentation" dilemma considers whether the SME manager should approve an act by his/her senior sales staff who has described a product as new or fit for consumption and has also displayed old/used/expired products with several new products with an intention to deceive the buyer into

thinking something about the product that the seller knows is false.

- (iv) The "coercive" dilemma considers whether an SME manager would approve a contract entered into by his/her staff who has taken advantage of a buyers ignorance, fear or emotional stress to extract consent to an agreement that the buyer would not make if the buyer were thinking rationally. Unscrupulous sales people may skillfully induce guilt-ridden and grief-stricken or unsuspecting buyers to buy a product expensively which they would otherwise have not bought.
- (v) The "due care" dilemma considers whether an SME manager should accept to take responsibility over a manufacturers product which he/she sold to a customer and the customer experienced a terrible incident with it. E.g a customer used a product he/she bought from your stores and while in use all of a sudden the user heard a terrible loud cracking noise. The product burnt producing a terrible smoke and fire that burnt the room where it had been installed.
- (vi) The "social costs" dilemma considers whether an SME manager (buyer/supplier) would extend his duties beyond those imposed by contractual relationships and beyond those imposed by the duty to exercise due care in preventing injury or harm
- (vii) The "faulty products" dilemma considers whether an SME manager - supplier should deliver expired products, knowing that he is delivering goods which are not fit for purpose and contrary to the terms and conditions of the contract;
- (viii) The "payments" dilemma considers whether an SME manager should approve a claim by his colleague to pay a supplier, knowing that the claim has been exaggerated, all the paperwork has been properly written and passed and no deliveries were made.
- (ix) The 'reimbursement' dilemma considers whether a finance officer should approve an expense reimbursement claim by his superior, knowing that the claim has been exaggerated;
- (x) The "power" dilemma considers whether a buying or supplying party which has more power than the other should dictate the terms of the agreement knowing the rights of each contracting party
- (xi) The "product adulteration" dilemma considers whether a supplier should go ahead and supply a product whose attributes has been tampered with (e.g label, package, trademark, weight etc) knowing that this product alteration would lead to serious consequences for the company
- (xii) 'The acceptance' dilemma considers whether a manager of a supplying company should accept a

qualified opinion report from the staff of the supplying company pointing out weaknesses in the client's products in the production process supplied by the same firm.

The DIT was composed of a series of moral dilemma vignettes and follow-up questions; after deciding what the character in the vignette should do, the participants were asked to identify which issues they felt were important in making a decision about the moral dilemma. Each DIT moral dilemmas had 12 follow-up questions, which resulted in a total of 72 items. These items were rated on a five-point Likert scale with 5=great importance to 1 = no importance. We checked for internal consistency of reliability using the "meaningless" score. The issue statements after each vignette have statements that sound meaningful and important, but do not match up with any stage of moral reasoning. Therefore, they are considered "meaningless" items (Rest, 1986). Participants who endorsed a large number of meaningless items were considered to have invalid protocols and were excluded from the study. Other reliability checks like consistency, missing ratings, missing rankings, non-differentiation – to eliminate respondents who have taken insufficient care in completing the test were applied. This scale yielded a Cronbach alpha coefficient of 0.774.

**SME social capital-** There are several measures for social capital and obtaining a single, true measure is probably not possible. Woolcock and Narayan (2000) have attributed this difficulty to the multidimensional nature of social capital and the different levels of analysis. Further, the forms of social capital change over time shifting between formal and informal organizations. despite this challenge, common measures in the studies have been identified as the membership in informal and formal associations and networks and the trust, norms, values that facilitate exchanges and lower transaction costs (Woolcock and Narayan, 2000; Schuller, 2001; Krishna and Schrader, 2002). This study adopted the definition given by Leana and Van Buren (1999) who define social capital at the organizational scale as "a resource reflecting the character of social relations within the organization, realized through members' level of collective goal orientation and shared trust." Organizational social capital was conceptualized as a multidimensional construct composed of Structural social capital (connections among actors), relational social capital (trust among actors), and cognitive social capital (shared goals among actors) (Nahapiet and Ghoshal, 1998). Structural social capital pertains to the opportunities for organizational members to gain access to relevant peers with desired sets of knowledge or expertise. Consistent with Andrews (2007, p.15), the structural dimension was gauged by asking informants about the extent to which "cross-departmental and cross-cutting working" was "important in driving contract

enforcement". Informants were asked whether "there is a high level of trust between top-management and staff" and if "there is a high level of trust between top-management and employees" in order to assess the relational dimension of social capital (p.16). Finally, the cognitive dimension was evaluated by enquiring about the extent to which the SME's "mission, values and objectives are clearly and widely owned and understood by all staff". Item scales for the trust, dimension of cognitive social capital were derived from the works of Munene and Isingoma (1994). These item scales were further adapted and broadly related to trust, reciprocity, mutual help, etc. we preferred to adapt these trust item scales because they have been previously applied to Ugandan organizations yielding an acceptable validity and reliability levels Zhang et al., 2006. All item scales were anchored on a 5 point likert-type scale with "1=strongly disagree to 5=strongly agree". All score items for structural capital, relational capital and cognitive capital were aggregated to form the social capital index. The Cronbach Alpha coefficient, which measures the internal consistency of a scale based on the average inter-item correlation was 0.838 and was considered adequate

**Organizational amnesia -** Measures for this construct were derived from a well documented body of knowledge on knowledge management and organizational memory. There are no standard universal measurement scales for organizational amnesia (OA). This may be attributed to conceptual differences. In this study, we attempt to contextualize previously developed item scale measures by relating them to SME buyer-supplier contractual arrangements. This study drew heavily from the works of Othman and Hashim (2004, p. 276) who have conceptualized organizational amnesia as a multidimensional construct composed of "time-based OA" that relates to the inability to benefit from past experience and "space-based OA" related to the inability to move or diffuse lessons learned at one point in the organization to other points in the organization. This preference was based on the ability of the Othman and Hashim's conceptualization to capture OA in its broad sense. Scholars like Kransdorff (1998) and Tiwana (2000) have tended to lean towards "time based OA" while Hughes-Wilson (1994), Snyder and Cummings (1998) and Robertson and Hammersley (2000) lean more towards "space-based OA". Despite these inclinations, this study captures both aspects of OA. All item scales were anchored on a 5 point Likert-type scale with "1= strongly disagree" to "5 = Strongly agree". Sample item scales adopted in this study included: "In this organization, we keep two sets of books of accounts one for management's use and the other for use by government regulatory bodies; In this organization, we don't keep up to date records on contracts with our business partners®; In this organization, quite often we experience loss of memory;



In this organization, we deliberately do not keep information that can easily be picked and used by detractors against us in future®; In this organization, we fear legal liability that could be traced back to the company "paper trails"; in this organization; In this organization, people who have the knowledge often leave and no retrievable record remains; Item measures for organizational amnesia yielded a cronbach alpha coefficient of 0.793.

Measures for contract enforcement behaviors were derived from the work of Fatchamps (1996) who developed a measurement scale which was used to collect data from case studies of manufacturing and trading firms in Ghana. The scales used in his paper document how commercial contracts are enforced in Ghana. Sample questions covered dimensions of compliance with contractual obligations, the desire to preserve personalized relationships based on mutual trust, harassment, court action, reputation effects, use of illegitimate force, contract renegotiation and reputation mechanism. Other items included: time elapsed since last case, in days, percentage of cases with full delivery, percentage of cases with partial payment, client faced technical or financial difficulties, client was unable to collect payment from own customer, client had to travel or left the business, client cheated. Other item scales were derived from the World Bank Group, Doing Business, (2003). Sample Items covered the efficiency of the judicial system on the enforcement of commercial contracts using: The number of procedures mandated by law or court regulation that demands interaction between the parties or between them and the judge or court officer, an estimate - in calendar days - of the duration of the dispute resolution, the cost- including court costs and attorney fees, as well as payments to other professionals like accountants and bailiffs. We compared these items against the ones developed by Ntayi et al., (2010b). All item scales were anchored on a seven point Likert type response scale ranging from "1 = strongly disagree to 7 = strongly agree". Item scales yielded a Cronbach Alpha Coefficients of 0.824.

### c) Data analysis

To test our hypotheses, we conducted correlation, regression and interaction analyses. In order to test the hypotheses rigorously, we conducted hierarchical multiple regression analyses following the procedures recommended by Aiken and West (1991); Cohen et al., (2003). In the first step of the regression, we entered SME social capital variable. In the second and third step, we entered the organizational amnesia and moral reasoning variables respectively. In order to test the enforcement behaviors of informal contracts in Ugandan buyer-supplier contractual arrangements containing the moderation and interaction effects, we used the procedure recommended by Aiken and west (1991) and Irwin and McClellan (2001). Aiken and West

(1991) have described the use of multiple regressions as a method for investigating interactions between continuous variables. Consistent with Aiken and West, (1991), the first thing we did was to center the independent variables by subtracting the mean from each value to prevent the interaction effect from causing unacceptable levels of collinearity.

## V. RESULTS AND DISCUSSION

Response rate was 36%, which was slightly lower than the average 39% obtained from similar studies conducted in Uganda. This could be attributed to the sensitivity of the research topic. The trade sector had the highest number of respondents (38.4%), followed by agro-processing (34.1) and manufacturing sectors (27.5%) respectively. 56.7% of the respondent firms were small, employing between 5-49 people, while the remaining 43.3% were medium sized enterprises with 50-99 employees. Majority of the respondent firms (46%) had operated for 10 years and over. This was followed by firms that had been in business for a period between 5-9 years making up 30.2% of the surveyed firms. 23.8% of the remaining firms had been in operation for less than 5 years. The business relationship between buyers and suppliers had on average lasted for a period of 4 years.

Figure 2 displays the means, standard deviations and bivariate correlations among the study variables. Zero order correlations were all significant and moderate, ranging between 0.309 and 0.558. Variance inflation factors were below the 10.0 threshold (Hair et al., 1998) and the corresponding tolerance levels ranged from 1.00 to 1.12 (figure 4). This indicates that multicollinearity was not a major problem in the database. According to Rovny (2009, p.3), "multicollinearity exists when a predictor is a perfect linear combination of one or more of the remaining predictors". This situation creates high correlations which results in large standard error which leads to rejection of relationships which may be true. Specifically, figure 1 reveals that organizational social capital is significantly positively correlated with organizational amnesia ( $r=0.309$ ,  $P<0.01$ ), significantly negatively correlated with moral reasoning ( $r=-0.364$ ,  $P<0.01$ ) and enforcement behavior of informal buyer-supplier contracts ( $r=-0.422$ ,  $P<0.01$ ) supporting H1. Organizational amnesia was significantly and negatively correlated with moral reasoning ( $r=-0.526$ ,  $P<0.01$ ), and enforcement behavior of informal contracts ( $r=-0.558$ ,  $P<0.01$ ). The relationship between moral reasoning of procurement managers and enforcement behavior of informal buyer-supplier contracts was positive and statistically significant ( $r=0.531$ ,  $p<0.01$ ).

Figure 2 : Correlation Analysis Results

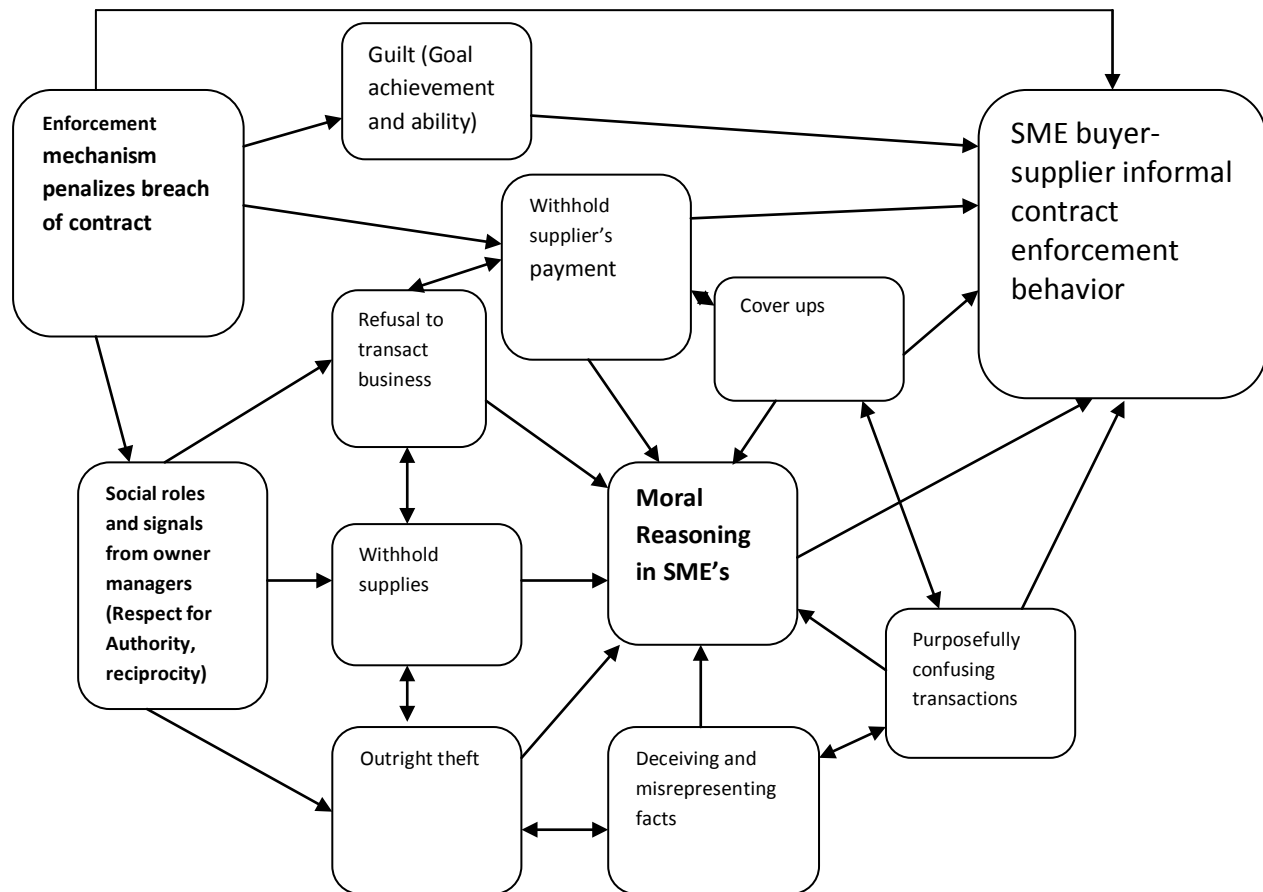
	Mean	Std. Deviation	1	2	3	4
SME Social Capital (1)	3.26	1.74	1.00			
Organizational Amnesia (2)	4.30	1.76	.309**	1.00		
Moral reasoning of procurement managers (DIT P%-score) (3)	0.25	2.27	-.364**	-.526**	1.00	
Enforcement Behavior of Informal buyer-supplier Contracts (4)	4.41	1.71	-.422**	-.558**	.531**	1.00
**Correlation is significant at 0.01 level of significance, *Correlation is significant at 0.05 level of significance, n=802						

Consistent with H5, descriptive statistics and results from qualitative interviews using the absolute P% values of moral reasoning scale, reveals that 93% of the respondents scored a dismal 25 or below, scores commonly associated with pre-conventional stage. This study further revealed that when SMEs procurement managers are faced with ethical dilemmas they more often than not exaggerate their offer, lie about certain things in order to protect their self-interests, alter facts, promise to do certain things and fail to do them. This finding is partially supported by the following representative case, V1 "...we have experienced many disappointing situations from our business partners which include but not limited to outright theft, cheating, breach of the gentleman's agreement, distorting data, purposefully confusing procurement related transactions, making false threats and promises, cutting corners, cover ups, deceiving and misrepresenting, inflating costs, dishonesty, shirking contractual obligations and violating unwritten understanding with buyers and suppliers" (see figure 3 for details). Additionally, late delivery, and deliveries of wrong quantities and poor quality items are a common feature among SME business partners. This self-interest could be attributed to the increased pressure on the SME resources and the demands of the buying or supplying organizations. For example, buyers testified that suppliers of agricultural produce typically supply goods which are high in moisture content, shriveled, diseased and discolored, insect damaged, mouldy and on several occasions foreign matter like sand, earth, dust, weeds, stones constitute a sizeable part of the supplies. These findings are consistent with observations of Kiryabwire (2010) who contends that increased business disputes in Uganda are associated with delivery of goods not fit for the purpose or not according to specifications or description; non delivery of goods and services paid for, nonpayment for goods and services given and failure to interpret terms and conditions of the contract. The following case displays a typical encounter between a buyer and supplier. "...In our daily transactions, we aim at developing a long term business relationships. When a supplier fails to supply as per the contractual obligations, we expect a genuine reason for non-

compliance." Unfortunately, our business partners are shrewd. Sometimes they display total ignorance of the contractual terms or completely deny their contractual obligations. We usually take it simple, because this seems to be the order of the day in Uganda." Surprisingly this study reveals that many SME managers try to weigh the physical consequences of an act before engaging in any manipulative trick. This is possible because most of the contracts entered into are informal and paperless. The SME procurement managers are interested in promoting self-interest and only consider others to the extent that they can help get what they want. This partially confirms H3 and also offers an explanation to the existence of negative social capital which leads to the practice of avoiding partners who are expected to be a hindrance to achieving procurement manager's self-interests. This depends on the perceived impact they would have on goal achievement and the level of guilt felt. Guilt is a cognitive or an emotional experience that occurs when a person realizes or believes—accurately or not—that he or she has violated a moral standard, and bears significant responsibility for that violation (Strickland, 2001; 2006; 2007). Guilt is a result of how close our social setting is closely knit to the SME business establishments and one's ability and desire to achieve goals as shown in figure 3. Unfortunately, this study finds that some buyers and suppliers lack any true sense of guilt or remorse for harm caused to others. Instead, buyers/suppliers rationalize their behavior, blame someone else, or deny it outright (Morten, Millon, Erik and Davis, 2002; Hare and Neumann, 2005). This can be seen as lack of moral reasoning and an inability to evaluate situations in a moral framework.



Figure 3 : Causal network relating moral reasoning and contract enforcement in Ugan



7% of SME respondents scored above 30 but less than 40 scores on the DIT, indicating that the moral reasoning for this category of respondents in the SME sample was at the "conventional" level. Consistent with Kohlberg's model, SME managers are very conscious with what people around them would think about a decision taken on an ethical dilemma. As a result SMEs try to gain acceptance in filling social roles by seeking approval from other people as it reflects society's accordance with the perceived role. This forces them to informally collaborate with external members like Uganda Revenue Authority (URA) staff, area Local Councils (LC's), district planners and development offices, to try and offer protection to the SME. What is interesting here is that morality of an action by the SME manager is judged in terms of a person's relationships with the immediate and distant members of the social system. The moral and social relationships forms a basis for a moral order on which SMEs in Uganda are built. The intentions of actions play a more significant role in moral reasoning at this stage. Social influences in Uganda discourage the use of a legal system and contract law.

Social relations within SMEs undermine moral judgment and connect organizational members through

negative interactions. These organizational members end up complying with unwritten rules within SMEs due to excessive pressure originating from peers and/or managers or collective social behaviors of both internal and external organizational members. This social influence has been responsible for the low level moral development among SME buyers and suppliers and thus conditioning SME employees to be morally mute. SME Employees have decided to keep quiet and not to speak out on moral behaviors of their buying or supplying organizations which act contrarily to the buyer-supplier contractual obligations. Social cohesion offers punishment to enforce contractual obligations by refusing to deal with a trading partner in the future and/or driving the partner out of a business network. This behavior can be referred to as social exclusion. Exclusion from business associational life is based on pressure to gain transactions that SMEs badly need in order to acquire resources that enable survival possible. This practice offers incentives to SMEs to comply with industry organizational amnesia practice of not filing tax returns, failing to keep and destroying business records, a practice that reinforces or perpetuates low moral reasoning.

Consistent with Flannery and May, (2000); May and Pauli (2002) and Singhapadki, Vitell, and Kraft, (1996), this study finds support for the relationship between work place social consensus and moral action in situations of ethical dilemmas. For example, social learning that result from continuous peer interactions among SME employees creates social identity which is related to moral behavior. In this study we demonstrate that employees in Ugandan SMEs worry more about social identity than professional identity. Respondents did not feel shy to defend and/or associate with SMEs that were known to be morally insensitive to their clients. Results from interviews revealed that many SMEs participated in some or a combination of these morally questionable actions : add sand to the grain at the time of sale to increase the weight, add stones to bulk the commodity, mix good quality with poor product, mix wet product with dry product, refuse to pay after delivery of goods and supplies, sell their produce to one buyer after having agreed on a price with another buyer, accept advance payment from one buyer and then sell the product to another buyer, adulterate the products of manufacturers and/or farmers. This finding is surprising and at variance with what transactional problems that contracts are meant to resolve. Under ideal situations, the buyer-supplier contracts provide assurance to the contracting parties that they do what they contract to do. It is only if they have such assurance will businesses feel able to trust each other's word and, on that basis, to

secure the benefits of the institution of contracts. Despite this contradiction, the study supports the works of Newell (2004), Edelman (2004) and Edelman et al., (2004) who reveal that social capital can be detrimental to value driven transactions. This paper has proved that social capital in SMEs has drawbacks and that these negative aspects of social capital result into opportunistic tendencies which the contract is supposed to address. Social capital has implications for decisions made when faced with ethical dilemmas since moral reasoning and social capital constructs were significantly correlated.

Furthermore as recommended, regression analysis was undertaken hierarchically to test for significant interaction effects over and above the main effects of the independent variables and the results are reported in figure 4 below. The control variables of organization age, ownership, and sales turnover were entered first to examine their simple additive effects on the enforcement behaviors of informal contracts in Ugandan buyer-supplier contractual arrangements. Model 1 revealed SME ownership to have a significant negative main effect on the enforcement behaviors of informal contracts in Ugandan buyer-supplier contractual arrangements ( $R^2 = 0.015$ ,  $p < 0.01$ ). The main effects of social capital, organizational amnesia and moral reasoning were entered second, third, fourth respectively and the interaction terms were entered in the fifth, sixth and seventh model.

*Figure 4 : Hierarchical Regression Analysis with enforcement behaviors of informal contracts in Ugandan buyer-supplier contractual arrangements as the dependent variable*

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Co linearity statistics Tolerance	VIF
(Constant)	4.63**	3.13**	1.65**	1.29**	.527	.224	-.124	na	Na
Org. Age	0.067	.023	.009	.013	.007	.015	.013	.970	1.03
Ownership	-0.098**	-.087**	-.063*	-.046	-.048	-.049	-.047	.998	1.00
Sales turnover	0.028	.069*	.049	.031	.030	.024	.023	.969	1.03
Social Capital within SMEs		-.423**	-.279**	-.219**	-.514**	-.634**	-.552**	.982	1.02
Organizational amnesia (SMEs)			-.467**	-.349**	-.538**	-.461**	-.563**	.890	1.12
Moral Reasoning of SME procurement Managers				.261**	.260**	.413**	.580**	.899	1.11
SOCXOA					-.410**	-.264*	-.175	na	Na
SOCXMR						-.323**	.294**	na	Na
OAXMR							.290**	na	Na
R	.122	.437	.622	.657	.666	.670	.673	na	Na
R square	.015	.191	.387	.432	.444	.449	.453	na	Na
Adjusted R square	.011	.187	.383	.428	.439	.444	.447	na	Na
F – statistics	158.47	216.97	147.83	133.64	117.77	104.57	90.20	na	Na
Sig.	.007	.000	.000	.000	.000	.000	.000	na	Na
R Square Change	.015	.176	.196	.046	.011	.006	.003	na	Na
F change-statistics	4.04	173.46	253.94	63.87	16.39	8.06	5.04	na	Na
Sig F Change	.007	.000	.000	.000	.000	.005	.025	na	Na
Note: Standardized regression coefficients are reported, n=802, n/a = not applicable									
** Regression is significant at the 0.01 level, * Regression is significant at the 0.05 level.									

The results of model 2, shows a statistically significant and negative effect of social capital on the enforcement behaviors ( $\beta = -0.423$ ,  $P < 0.01$ ) with  $R^2 = 0.191$  and  $\Delta R^2 = 0.176$ . This finding supports H3 which states that social capital affects SME buyer-supplier informal contract enforcement behavior. The negative sign indicates that higher levels of social capital within the buying and supplying SMEs are associated with greater levels of non-enforcing behaviors of informal contracts. Model 3, reveals that SME organizational amnesia significantly and negatively predicted enforcement behaviors of informal contracts ( $\beta = -0.467$ ,  $P < 0.01$ ) with  $R^2 = 0.387$  and  $\Delta R^2 = 0.196$ . This finding supported H6. This result demonstrates that higher levels of organizational amnesia are associated with SME non-compliant contract enforcement behavior. Model 4 contained a simple additive effect of moral reasoning on enforcement behaviors of informal contracts which resulted in a statistically significant positive effect ( $\beta = 0.261$ ,  $P < 0.01$ ) and had a  $\Delta R^2 = 0.046$  supporting H2. The statistically significant and positive effect demonstrates that increased levels of moral reasoning are associated with increased levels of enforcement behaviors of informal contracts in Ugandan buyer-supplier contractual arrangements.

Model 5, reveals that the interactive term of social capital and organizational amnesia of SME Managers negatively predicted enforcement behaviors of informal contracts in Ugandan buyer-supplier contractual arrangements ( $\beta = -0.410$ ,  $P < 0.01$ ) with R Square change statistic of 0.011). This finding support H7: social capital interacts with organizational amnesia to affect SME buyer-supplier informal contract enforcement behavior. Similarly, consistent with H4, model 6 reveals that the interactive term of social capital and moral reasoning significantly and negatively predicted enforcement behaviors of informal contracts in Ugandan buyer-supplier contractual arrangements ( $\beta = -0.323$ ,  $P < 0.01$ ) with R Square change statistic of 0.006). The negative sign of the interactive term means that higher levels of moral reasoning are associated with lower slope of enforcement behavior of informal contracts on social capital. In other words moral reasoning significantly moderates the social capital to enforcement behaviour relationship. The social capital to enforcement behaviour is strongest in the case of low moral reasoning and weakest in the case of high moral reasoning. Consistent with H6, model 7, demonstrate that the interactive term between organizational amnesia and moral reasoning is significant and negative ( $\beta = -0.290$ ,  $P < 0.01$ ) with R Square statistic of 0.453,  $P < 0.01$ ) and  $\Delta R^2 = 0.003$ . The negative sign reveals that higher levels of moral reasoning are associated with lower slope of enforcement behavior on organizational amnesia.

## VI. POLICY, MANAGERIAL AND RESEARCH IMPLICATIONS

Taken together our results offer strong support for the main and interaction effects of social capital, organizational amnesia and moral reasoning on the enforcement behaviors of informal contracts in Ugandan buyer-supplier business arrangements supporting H2, H3 and H6. A consistent body of research has tested and found a positive main effect of social capital on performance outcomes and behavior (e.g. Munene, 2004; Bourdieu, 1985; Coleman, 1990; Perry-Smith and Shalley, 2003; Podolny and Baron, 1997). However, in this study we obtain social capital effects which are exactly the opposite of what is commonly celebrated in literature. As social cohesion increases, social capital is made available to SME managers who use it to breach contractual obligations or defraud buyers/suppliers. The study has established that organizational social capital can be a liability to SME contracting partners. SMEs use social capital to engage in behaviors that compromise and/or frustrate the performance of informal buyer-supplier contracts. This finding lends credence to the research work of Ntayi et al., (2010d) who revealed a significant positive effect of work place social cohesion on unethical procurement behavior. This is supplemented by additional information from interviews which revealed that employees of the SME supplying firms collude to supply goods of questionable quality, delivery schedules are intentionally not adhered to, continuous and smooth supply from suppliers are almost non-existent. This business practice which result from the SME social capital has led to distrust among business partners. It is not uncommon today to hear terms like "kiwani" and "beleges" among the Ugandan business community, which literally means "a consistent lying culture" and "delivering fake products" respectively. The above coined words are reflective of the Ugandan SME ethical environment.

The findings of this study have policy, theoretical and research implications. First, a vast body of research emphasizing the positive effects of social capital has continued to dominate literature, largely ignoring its negative effects in business transactions. This has tended to create an impression that social capital is generally associated with positive effects. This study attempts to use data from SMEs in Uganda to demonstrate that social capital produces negative outcomes too. Further, the study points to the fact that there exists a form of negative social capital which operates to facilitate unethical business behavior associated with performance of contractual obligations. Despite this finding, the authors acknowledge that, there is inadequate conceptualization and empirical works under which social capital increases unethical business

behavior. Therefore, there is need to conduct more empirical studies to confirm the type of social capital and the conditions under which it promotes negative outcomes. One possible starting point would involve using theories from criminology literature to explain how social capital is generated and utilized in fostering unethical behavior in business transactions. This is supported by the Ugandan integrity survey reports which have revealed presence of widespread organized white collar crime. Secondly, the study reveals that as social capital increases, the effects of organizational amnesia and moral reasoning on enforcement of contracts is increasingly negative. This state of affairs increases transactional costs of SMEs as enforcement of informal contracts becomes a night mare. Another major implication of this study is that SME managers need to develop an ethical workplace culture and ethical rights which protect employees, buyers and suppliers from breach of contractual obligations (Barnard, 1950; Drucker, 1993). This is likely to promote productive social capital. Additionally, government through ministry of finance, planning and economic development, small business unit can design a strategy of developing small businesses through training and offering incentives to companies that keep records. Offering tax holidays to all new companies for a period of say five years may promote positive social capital, increase moral reasoning and reduce organizational amnesia. These initiatives can easily be interpreted as respecting SME owner managers, eventually resulting into improved and productive moral managers. A negative relation between URA and SMEs is a source of frustration, negative social capital and decreased moral reasoning of the SME managers. Respondents revealed that Uganda government does not offer any visible support to new SMEs. Government's selfish interest is to collect taxes from the resource constrained SMEs.

SMEs owner managers revealed that most of their businesses are established and financed using hard earned savings. This therefore means that, subjecting SMEs to taxation while in their infancy renders them operationally weak and unable to survive in the long run. This study establishes a link between government actions and the low moral development of SME buyers and suppliers. Government actions and/or policies are responsible for shaping an SME work environment that undermines moral development and judgment. The observed negative social capital, increased organizational amnesia and low moral reasoning, is a response mechanism by SMEs to balance government pressure directed at resource suffering SMEs to conform to statutory requirements. Over 89% of the respondents retorted that "it is unreasonable to expect government to reap and/or harvest from a newly started business". The government's requirement for all SMEs to register and pay their taxes electronically, comply with pay as you

earn regulations, and pay the compulsory SME worker contribution of 10% to national social security fund is unreasonable. This attitude explains the absence of business records in SMEs which has been previously attributed to a competence gap. Such a business culture burdens the process of assembling evidence, tedious and time consuming during contract enforcement process by courts of law. The inability to recall memory by SMEs is a characteristic of their history.

The study further revealed a dismal 25 or below, scores commonly associated with Kolberg's pre-conventional stage of moral reasoning characterized by a view that right behavior means acting in one's own best interests. This self-interest promotes non-compliance because of the belief that procurement officers will be much happier if they save their relatives/friends, even if they will have to serve a prison sentence. Results further revealed that 7% belonged to the third stage of conformity which encourages stealing/cheating and being engaged in all sorts of unethical conduct, because our friends/relatives expect it; if we want to be good to friends and relatives. This study has implications for SME managers and owners that want to develop their businesses through value driven interaction with suppliers. Those SMEs that want to avoid potential ethical problems may select those employees who are high in moral reasoning, as they are just as likely to be successful without compromising moral values. We need to improve the moral reasoning of SME employees. Secondly in order to achieve this goal, SME managers may want to use measures of moral reasoning as pre-screening criteria in situations regarding the hiring of new employees. And finally, managers and firm owners may want to investigate employing ethical training interventions designed to improve the ethical reasoning of their existing employees.

## VII. CONCLUSION, LIMITATIONS OF THE STUDY AND DIRECTIONS FOR FUTURE RESEARCH

An important conclusion for this research is that SME social capital highlights negative aspects of social relations at work. Such behavior is consistent with Bartel and Saavedra (2000) and Godard (2001) who found social capital to be associated with abuse of managerial power. Results from critical incident analysis revealed that moral reasoning can be lost in the event of repeated resource constraints, social interactions and social learning. Intentional acts that harm or disadvantage one or more others like cheating are a reflection of low moral reasoning. Organizational socialization and acts of dishonesty, and discouragement which do not favour contract enforcement behaviours are linked to reduced moral reasoning. Similarly some pro-social behaviour of helping an SME business to successfully evade taxes,



not to follow business rules and regulations and encouraging are linked to low moral reasoning of SMEs.

This study has weaknesses that severely limit interpretation of results. The cross-sectional nature of the data limits inferring causal linkages between social capital, organizational amnesia, moral reasoning and enforcements of contracts. Additionally, this study concentrated on organizational social capital, ignoring buyer-supplier social capital which needs to be studied to get a balanced view of how the study constructs affect contractual arrangements.

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## A Study of Levels and Characteristics of Innovation Activity

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**Abstract** - The importance of innovation in organizations' competitiveness is an undeniable fact. Innovations reflect a critical way in which organizations respond to either technological or market challenges. Small and Medium sized enterprises (SMEs) constitute 94 % of Iranian firms. According to Iran statistic website the value added of 94 % of Iranian firms is just about 10 % of the whole value added in country. This study assumes the lag of innovation is the reason of uncompetitive nature of Sistan & Baluchestan SMEs. This paper reports on the results of a study that examined barriers to firms' innovation among a sample of 86 managers of small and medium-sized enterprises (SMEs) in Sistan & Baluchestan. Findings of the study show that the most significant barriers are associated with costs, whereas the least significant are associated with lag of information. The survey results show that Sistan & Baluchestan SMSs are not collaborating with universities and higher education institutions; they do not see university as a main source of information. Then it is not a surprising point that 29.0 % unemployment rate is reported in 2009 however 50 % of studied SMEs reported lack of skilled labour as a barrier to innovation.

**Keywords** : *Innovation, Barriers to innovation and SMEs, Sistan & Baluchestan.*

**GJMBR-A Classification**: *FOR Code: 150307 JEL Code: O15, D03,D23*



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*Strictly as per the compliance and regulations of:*





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## I. INTRODUCTION

The importance of innovation in organizations' competitiveness is an undeniable fact. Rogers defined innovation as "an idea, practice, or object that is perceived as new by an individual or unit of adoption". Innovations reflect a critical way in which organizations respond to either technological or market challenges (Brenner 1987, Comes-Casseres 1994, 1996, Smith et al, 1992, Hage, 1988). The survival and growth of business enterprises increasingly depends on their ability to respond to globalization and rapidly changing in market demands, technologies and consumer expectations. Emerging opportunities and threats forced companies to investigate and invest more on innovation to decrease risk of becoming uncompetitive.

As Debdulal Dutt'a Roy(2008) noted" innovations may be directed to change the organizational structure (the degree of complexity, formalization, and centralization), technology (introduction of new equipment, tools or methods, automation, or computerization) and human resources (changing the attitudes and behavior of organizational

members through processes of communication, decision making, and problem solving)".

With increasing global competition and quickly spreading of knowledge, the future of many businesses depends upon their ability to innovate. The ability of a company to not only keep up with its current business practices, but to exceed its own – and its competition's – expectations are critical to survival (<http://www.realinnovation.com>).

Due to the great contribution of the innovative activities to the firms' competitiveness and success, it is of great interest to identify the barriers and obstacles that limit the development of innovative activities in firms. A number of studies show that firm differences in barriers to innovation were related to cost, institutional constraints, human resources, organizational culture, flow of information and government policy (Mohen and Roller 2005; Baldwin and Lin 2002). There are many good reasons for paying attention to small and medium sized enterprises (SMEs). They constitute the 94 percent of Iranian firms (amar.org), they are a main source of employment, and they are flexible. Iran defines SMEs as independent businesses that employ less than 250 people (Iranian Commission, 2003).

This paper reports the results of a study that examined barriers to innovation among a sample of 86 SMEs in the Sistan and Baluchestan. Sistan and Baluchestan economy has not been growing in terms of GDP in compare with other provinces in Iran during the period 2006-2008. Innovation contributes to sustained long-run economic growth through industry-wide spillover (Grossman and Helpman 1990; Romer 1986). The value added of 94 % of Iranian firms is just about 10 % of the whole value added in country (amar.org). John Cantwell (2003) defined Competitiveness as the possession of the capabilities needed for sustained economic growth in an internationally competitive environment. The importance of innovation in organizations' competitiveness is an undeniable fact. This study assumes the lag of innovation is the reason of uncompetitive nature of Iranian SMEs. Finding the current innovation situation and primary obstacles to innovation in Sistan and Baluchestan province of Iran are the main goals of this study. In particular, by using empirical data, the paper sheds light on the issue: the characteristics and behaviors that distinguish innovator firms and non-innovator firms. The remaining sections of the paper are organized as follows: the second section

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presents previous research on innovation and barriers to innovation, the third section describes the methodology used in the analysis, which is discussed in the fourth section. The fifth section concludes the paper.

## II. INNOVATION AND ITS IMPORTANCE FOR ENTERPRISES

"Innovation . . . is generally understood as the successful introduction of a new thing or method . . . Innovation is the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes, or services". (Luecke and Katz, 2003). Rogers defined innovation as "an idea, practice, or object that is perceived as new by an individual or unit of adoption". (Swanson, 1994). To attain the business environmental policy goals, enterprises will either have to bring about modifies in the way people do something, or changes in technology. Innovation is one of the main processes by which those changes come about.

Innovation is not fully about the development of new product (services). Enterprises can also take advantages administrative innovation (improving internal control, coordination, and structure), and technical innovations (changes to technology or work processes). Davila et al (2006) organized reasons why enterprises undertake innovation in the following way:

1. Improved quality
2. Creation of new markets
3. Extension of the product range
4. Reduced labour costs
5. Improved production processes
6. Reduced materials
7. Reduced environmental damage
8. Replacement of products/services
9. Reduced energy consumption
10. Conformance to regulations

Community innovation survey (2007) defined nine factors as motivation factors to innovation, increased range of goods or services, Entered new markets or increased market share, Improved quality of goods or services, Improved flexibility of production or service provision, Increased capacity for production or service provision, Reduced costs per unit produced or provided, reduced environmental impacts or improved health and safety, Met regulatory requirements, Increased value added. Organizations which generate and implement more good ideas about better, more efficient ways of working have a distinct advantage in a competitive environment. To achieve success over a long period of time, all organizations need to hold innovation (Andy Couchman et al, 2004). With The globalization phenomena, market expansion, and increased customers' expectations and competition among firms, innovation has become more market-driven, more rapid and intense, more closely linked to scientific progress, more widely spread throughout the

economy (OECD, 2000). Organizations may also facilitate innovation through project teams or R & D departments (Morton 1971, Zaltman, Duncan, and Holbek 1973). Services sector R&D, for example, rose from less than 5% of total business enterprise R&D for the OECD area as a whole in 1980 to more than 15% in 1995. In countries that measure services R&D well, such as Canada, it now amounts to about 30% of total business enterprise R&D (OECD, 2000). Steve Jobs defined Innovation has nothing to do with how many R&D dollars you have... It's not about money. It's about the people you have, how you're led, and how much you get it. He argued that there are no definitive metrics for innovation. Measures of innovative success vary by company and industry. He defined R&D and patent creation as the most common metrics of innovation:

- R&D – This metric assumes that the amount of money spent on research and development directly correlates to the amount of innovative products, processes and services that get to the public.
- Patent creation – Some companies create patent after patent and boast of their innovative capabilities. While this may be well and true for a few, if the numbers of patented products, processes, and services are now making it to the marketplace, then their relevance diminishes.

The propensity of countries to seek sources of innovation and knowledge wherever they are present has increased considerably in terms of patenting in the 1990s. The internationalization of patenting has not been equally rapid in all countries: the available evidence shows that US patents have a larger, and more rapidly growing, proportion of foreign co-inventors than those of Europe or Japan. An interesting point about innovation was found in Paul Windrum (2006) "Innovation begets further innovation ". He argued that Through organizational innovation, managers gain a more specific view of the different activities of the firm, and see the potential creative opportunities that arise through breaking down 'departmental silos' and creating novel synergistic activities. Rogers argue that any innovations have characteristics which explain the rate of their adoption:

- **Relative advantage:** "the degree to which an innovation is perceived as better than the idea it supersedes" ;
- **Compatibility:** "the degree to which an innovation is perceived as being consistent with existing values, past experiences, needs of potential adopters"
- **Complexity:** "the degree to which an innovation is perceived as difficult to understand and use"
- **Trial ability:** "the degree to which an innovation may be experimented with on a limited basis"
- **Observability :** "the degree to which the results of an innovation are visible to others."

Innovations are considered as a major engine to enhance their performance and to strengthen their competitive position in the market by companies (Vareska van de Vrande, 2008).

### III. BARRIERS TO INNOVATION

As many studies show, innovation has positive effects on the firm; it is interesting to find out why not all firms engaged in innovation activities. Laura Palmer-Noone discussed that Most of these leaders believed that their greatest challenges to innovation were to be found inside their institution. In her findings traditional institutional culture, or institutional inertia cited as a significant barrier to innovation. A number of studies show that firm differences in barriers to innovation were related to cost, institutional constraints, human resources, organizational culture, flow of information, and government policy (Mohen and Roller 2005; Baldwin and Lin 2002). Support of employees for changes in their firms depends on the kind of innovation implemented. While changes in the organization of work that are introduced independently of investments in new machinery are encountered by resistance, investments in new machines, production sites, etc. are supported by employees (Thomas Zwick). It is not always a barrier against innovation but it may retard or change the innovation plans (Schaefer, 1998). Antonia Madrid-Guijarro ET. Al (2009) emphasized on a resource-based view of organizations. They introduced financial resources, human resources and external resources as barriers to innovation. Cost has been mentioned as one of the most important barriers to innovation. High innovation costs have a negative and significant effect on the innovation propensity (Lim et al, 2007 and Silva et. al, 2007). Arguments can arise between the need to invest in innovation and the risk aversion common among managers/owners (Hausman 2005; Frenkel 2003), with small firms being especially subject to such conflicts because of their limited financial resources. A study in Canada reveals that set up costs, rather than the running costs, are of greater concern for those that intend to engage in innovation activities (CSLS, 2005). Understanding of economic risks associated with innovation activities would have a low degree of association with firms' experience in innovation activities (Lim et al, 2007). The most financial theories such as transaction cost theory and agency theory linked risk and financial exposure, in the way that with higher risk being associated with higher financial exposure and lower risk with lower financial exposure (Brigham and Ehrhardii, 2005). Transaction cost theory analyzes the fact that the intangibility and specificity combined with investment in technology, by increasing transaction costs, may decrease the firms' propensity to financing innovation with debt. Agency theory argues that the high risk of innovative activities and the existence of information asymmetries can increase problems with

debt financing. An increase in debt may lead to an increase in conflicts between lenders and the firm. Several previous studies point to the negative influence of debt on innovation activity (Giudici and Paleari 2000). But Dr Xavier L. Comtesse et al (2002) argued that financial issues were not considered to be major barriers to innovation in Switzerland. C.C. Colton viewed the company culture and leadership as two prominent barriers to innovation. He argued that if the company's culture isn't set-up to accept new ideas and creative contributions from its staff then inventions will be unable to break through to the marketplace. Employee commitment and effort is required in adaption of innovation (Acemoglu and Pishke, 1999). Resistance to change which results from poor employee skills and inadequate training is viewed as an important organizational challenge by many researchers. It also argued that small business managers often lack the types of education and training that have been linked with a successful innovation strategy (Hausman, 2005). Shanteau and Rohrbaugh (2000) argued that Weak management support is another innovation choke point because innovation can disrupt established routines and schedules.

Barriers to innovation also included organizational inertia and structured routines that may limit the ability of incumbent firms to identify new opportunities and adapt to environmental changes (Nelson and Winter (1982); Hannan and Freeman (1984)). Obstacles that were external to the firm are clearly more important than internal ones, perhaps because most internal issues can be resolved by a firm that is committed to its innovation activity (Lim et al, 2007). Global competition, government policy, and economic uncertainty require that firms effectively communicate to managers the importance of innovation as a core firm strategy that will help maintain market competitiveness (Antonia Madrid-Guijarro et al, 2009). Because of high competitive pressures, firms are forced to adopt new technologies so as to gain a competitive advantage (Porter, 1985). Many researchers suggested that firms in more turbulent external environments have higher potential for innovation, because turbulent environments trigger firms to incorporate innovation into their business strategy in order to remain competitive and, ultimately, survive (Antonia Madrid-Guijarro et al, 2009). Lack of information about market opportunities, changes in technology, and government policy \_which impact managers' adoption of innovation as a strategy to better meet customer needs and to help make the firm more competitive\_ is viewed as other barriers to innovation. Lack of market information related to the potential requirement and preferences of the end-user may lead to a firm producing products that are not meeting the users' needs, and hence may lead to lack of customer responsiveness towards firms' innovative products. In other words, recognition of the requirement

of potential customers is important to ensure the success of firms' innovation process (Lim et al, 2007). Lack of government assistance was defined as the third most important barrier to innovation in European countries by Piatier (1984) research.

Maria José Silva (2007) defined nine barriers to innovation as the base of his research.

- The high economic risk
- The high cost of innovation

- The lack of financing
- The organizational rigidities
- The lack of skilled personnel
- The lack of information about technology
- The lack of information on market
- The lack of customer's responsiveness
- The government regulations

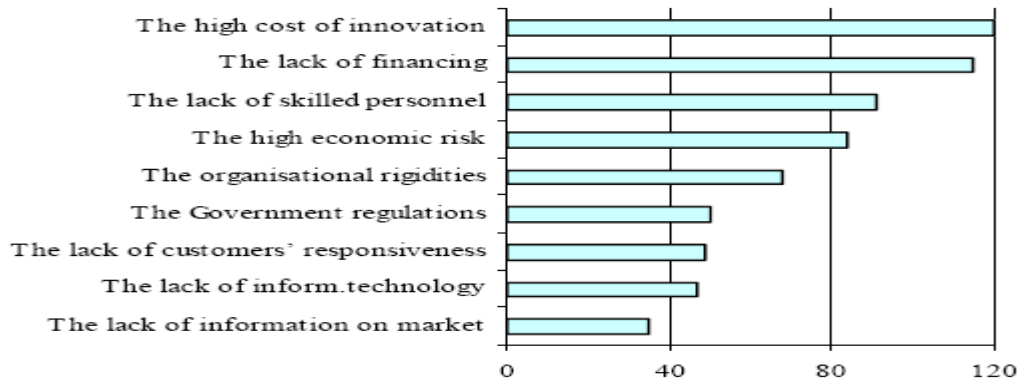


Figure 1: Barriers to innovation in Portuguese firms (Silva, Maria, Leit˜ao, Jo˜ao and Raposo, Mˆario 2007)

In what concerns the significance of each restraining factor of innovation, four significant variables are detected. The high economic risk and high cost of innovation are defined as economic factors that prevent innovation in Portuguese firms. The first important point is that the firm can't innovate and grow unless you're willing to take risks. However, in the current regulatory and tort environment, companies are more focused on risk reduction than ever before. The lack of financing sources has a negative and significant effect on the innovation propensity. For its turn, the lack of qualified personnel restrains the propensity of the firm for innovating and also for developing the innovation process. The lack of customers' responsiveness to new products has also a negative and significant impact on the propensity for innovating. The study of Lim et al (2007) investigates empirically the obstacles to innovation faced by manufacturing firms in Malaysia based on data from the Third National Survey of Innovation (NSI-3). NSI\_3 defined nine obstacles to innovation same as the Portuguese research (cost of innovation, economic risks, lack of sources of finance, lack of information on markets, lack of information on technology, lack of skilled personnel, lack of customers' response, legislation and regulation and organizational rigidities).

Table 1: Barriers to innovation in Malaysian firms (Lim, Ee Shiang and Shyamala, Nagaraj 2007)

Obstacles to Innovation	All Firms			
	High Importance	Medium Importance	Low Importance	Not Relevant
Innovation costs too high	49.3	27.9	5.2	17.6
Excessive perceived economic risks	32.4	33.8	12.5	21.3
Lack of appropriate sources of finance	29.4	34.6	13.2	22.8
Lack of information on markets	30.9	30.9	19.9	18.3
Lack of information on technology	25.0	28.7	16.2	30.1
Lack of customer responsiveness to new products	24.3	30.9	19.1	25.7
Lack of skilled personnel	21.3	30.9	21.3	26.5
Insufficient flexibility of regulations and standards	14.0	35.3	12.5	38.2
Organizational rigidities	8.8	30.9	19.1	41.2

The results provide insights that high innovation costs have a negative and significant effect on the innovation propensity. The same is detected for the barrier associated with excessive perceived economic risks. For its turn, the lack of information on the market restrains the propensity of the firm for innovating and also for developing the innovation process. The lack of appropriate sources of finance has also a negative and significant impact on the propensity for innovating.



#### IV. RESEARCH METHODOLOGY

The data for this study was gathered from questionnaires surveyed to a sample of 86 SMEs of the Sistan and Baluchestan. The questionnaires were distributed among the managers because previous studies reported that managers' attitude significantly impacted innovation climate (Storey 2000; Lefebvre, Mason, and Lefebvre 1997; West and Anderson 1996). The questionnaire which is used is the same as the UK innovation survey questionnaire 2007. Some changes is made in questions such as Geographical locations.

order to increase confidence in the validity of the measures, the questionnaire was distributed to five managers for the purpose of pilot testing and led to modifications in some part of questions. Reliability of the inequity scale was  $\alpha = 0.9$ . Construct reliability hence appear adequate.

#### V. DESCRIPTION OF SAMPLING

From the 86 distributed questionnaires, 50 were completed and returned for the response rate 58.13 %.

*Table 2:* Proportion of enterprises in the population covered by the survey

Number of employees	Percentages of all respondents		
	1-9	10-50	51-250
Manufacturing and services	28.6	57.1	14.3

#### VI. LEVEL OF INNOVATION ACTIVITIES AMONG SMES

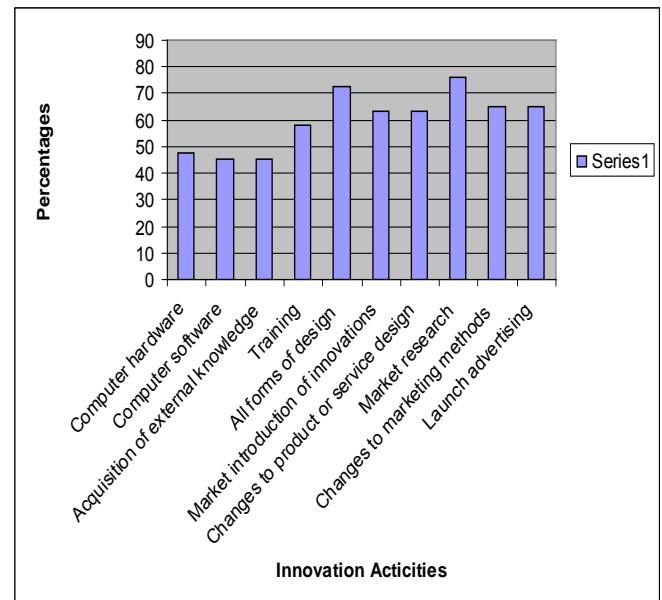
According to the result of questions four and eight, From 50 respondents, 64 % were innovators and the 36 % rest were non-innovators. Innovation takes place through a wide variety of business practices, and a range of indicators can be used to measure its level within the enterprise or in the economy as a whole. These include the levels of effort employed (measured through resources allocated to innovation) and of achievement (the introduction of new or improved products and processes). This section reports on the types and levels of innovation activity over the three-year period 2006 to 2008. Innovation activity is defined here as where enterprises were engaged in any of the following:

- Introduction of a new or significantly improved product (goods or service) or process
- Engagement in innovation projects not yet complete or abandoned
- expenditure in areas such as internal research and development, training, acquisition of external knowledge, or machinery and equipment linked to innovation activities.

*Table 3:* Innovation-active enterprises: by type of activity, 2006 to 2008

	Percentages
Innovation -activities	64
Product(good/service) innovator	50
Process innovator	64
Abandoned activities	17.6

Around 17.6 % of SMEs report abandoned projects. The proportion of enterprises having participated in some innovation-related activity (64 per cent) shows that SMEs recognize the need to assign resources to innovation. The most commonly reported activities were in marketing research, followed by a considerable investment in all form of design.



*Figure 2:* Breakdown of innovation activities

#### VII. AREA OF ACTIVITIES

The businesses surveyed were asked which markets they operated in. Figure 3 show that 80 % of Sistan and Baluchestan enterprises operate at a regional level, about 44 % at Iran level and 0 % worldwide. Just under a quarter (20 per cent) of businesses reported any exports for the years 2006\_2008.



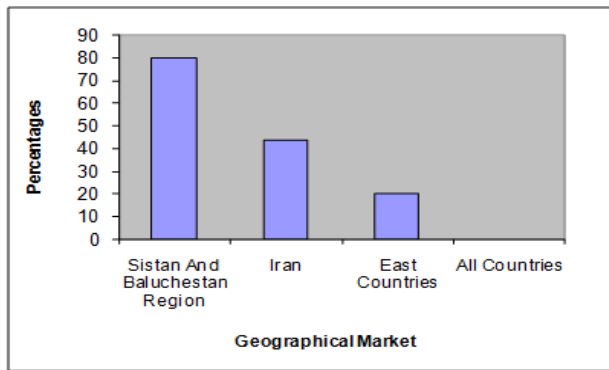


Figure 3 : Geographical markets

## VIII. BARRIER TO INNOVATION

Successful and evidence-based policy interventions require an understanding of the barriers to business innovation. These barriers can be internal obstacles that the enterprise encounters while carrying out innovation activities as well as external factors preventing innovation.

The survey asked about a range of constraining factors and their effect on the ability to innovate. Table 4.3 shows the mean and standard deviation of each category of constraints.

Table 3 : Barriers to innovation

Barriers to innovation Factors	N	Mean	Std. Deviation
Excessive perceived economic risk	50	3.48	1.035
Direct innovation costs too high	50	3.28	1.051
Cost of finance	50	3.44	.951
Availability of finance	50	3.40	1.030
Lack of qualified personnel	50	3.20	.990
Lack of information on technology	50	3.12	1.043
Lack of information on markets	50	2.84	1.057
Dominated by established enterprise	50	3.20	1.069
Uncertain demand	50	3.08	1.243
Governmental regulations	50	2.64	1.306
International regulations	50	2.76	1.188

The results provide insights that high excessive perceived economic risk have a negative and significant effect on the innovation propensity. The same is detected for the barrier associated with the lack of financing sources. For its turn, uncertain demand restrains the propensity of the SMEs for innovating and also for developing the innovation process. The high innovation cost has also a negative and significant impact on the propensity for innovating.

Few enterprises felt constrained by a lack of information on market, while a lack of qualified personnel was viewed as one of the most important constraining factor by half of the SMEs.

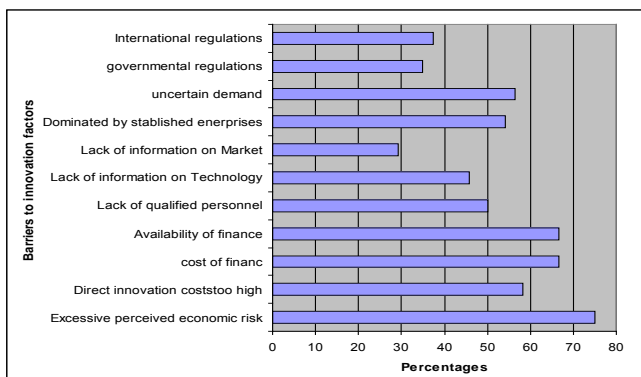


Figure 4 : Barriers to innovation

## IX. WHY ENTERPRISES DID NOT INNOVATE

The survey also attempts to gain an appreciation of the possible reasons why businesses were not involved in innovation activity during the period 2006 to 2008.

### Reasons why enterprises did not innovate(2006\_2008)

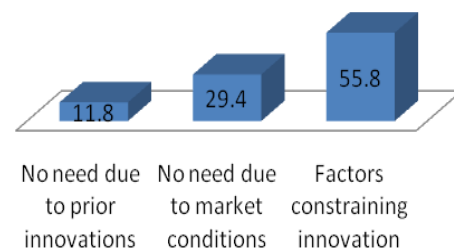


Figure 5 : Reasons why enterprises did not innovate (2006 to 2008)

As the figure 5 shows by 55.8 % of factors constraining innovation is cited as the main reason why enterprises did not innovate. No need due to market conditions is reported as important factor by 29.4 of SMEs.

## X. DRIVING FORCES OF INNOVATION

On this occasion, the survey sought information about motivation factors for innovation. Respondents were asked to rank a number of drivers for innovating on a scale from no impact, through low, medium or high.

*Table 4 :* Innovation  
One-Sample Test

Driving Factors	T	Df	Sig. (2-tailed)	Mean Difference
Increased range of goods or services	12.831	49	.000	2.680
Entered new markets or increased market share	16.202	49	.000	3.000
Improved quality of goods or services	28.253	49	.000	3.440
Improved flexibility of production or service provision	14.936	49	.000	2.680
Increased capacity for production or service provision	15.330	49	.000	2.680
Reduced costs per unit produced or provided	13.870	49	.000	2.840
Reduced environmental impacts or improved health and safety	10.549	49	.000	2.160
Met regulatory requirements	13.893	49	.000	2.880
Increased value added	15.812	49	.000	2.880

According to Table 4, from the respondents view there is a significant mean difference among driving factors of innovation. Improved quality of goods or services is reported as the main motivational factor of innovation. Entered new markets or increased market share, Met regulatory requirements and Increased value added were widely reported.

## XI. METHODS TO PROTECT THE VALUE OF INNOVATION

The survey collected data on business perceptions of the relative importance of different means of protecting intellectual property, reported in table 5. These included formal intellectual property rights as well as strategic mechanisms such as being first to market. The data show that Trademarks are the most important factors and it is followed by Patents and Registration of design.

*Table 5 :* The mean and standard deviation of methods to protect the value of innovation

Protection Method	N	Mean	Std. Deviation
Registration of design	50	2.88	1.547
Trademarks	50	3.20	1.309
Patents	50	2.92	1.510
Copyrights	50	2.44	1.593
Secrecy	50	2.28	1.679
Complexity of design	50	2.44	1.514

## XII. INFORMATION SOURCES OF INNOVATION

Respondents were asked to rank a number of potential information sources on a scale from 'no relationship' to 'high importance'. The mean and standard deviation of each category (information source) is shown in Table 4.7

*These sources are:*

- Internal – from within the enterprise itself or other enterprises within the enterprise group
- Market – from suppliers, customers, clients, consultants, competitors, commercial laboratories or research and development enterprises
- Institutional – from the public sector such as government research organizations and universities or private research institutes, and
- Other – from conferences, trade fairs and exhibitions; scientific journals, trade/technical publications; professional and industry associations; technical industry or service standards.

*Table 6* : The mean, number and standard deviation of Information resources

Information sources	N	Mean	Std. Deviation
Within your enterprise group	50	2.88	1.547
Suppliers of equipment	50	3.40	1.143
Clients or customers	50	3.52	1.111
Competitors or other enterprises within your industry	50	3.00	1.429
Consultants, commercial labs or private R&D institutes	50	2.28	1.526
Universities or other higher education institutes	50	1.80	1.457
Government or public research institutes	50	2.04	1.603
Conferences, trade fairs, exhibitions	50	1.80	1.429
Scientific journals and trade/technical publications	50	2.32	1.477
Professional and industry associations	50	2.24	1.492
Technical, industry or service standards	50	2.64	1.613

The results show that client or customers were cited as the most important source of information by Sistan and Baluchestan SMEs and it is followed by suppliers of equipments.

### XIII. CO-OPERATION AGREEMENTS (ATTITUDES OF SMES RESPECT TO TYPES OF PARTNERS)

As it is displayed in the table below (Table 7), the smaller and greater means are for Universities or

other higher education institutions and Suppliers of equipment, materials, services, or software respectively. From the information provided by table 7, this can be suggested that SMEs have fewer propensities about co-operation with universities or other higher education institutions while the most frequent partners for co-operation were suppliers of equipment.

*Table 7* : the mean rank of different types of partners

Different type of partners	Mean Rank
Other business within your enterprise group	4.56
Suppliers of equipment, materials, services, or software	4.64
Clients or customers	4.40
Competitors or other businesses in your industry	4.28
Consultants, commercial labs, or private R&D institutes	3.26
Universities or other higher education institutions	2.88
Government or public research institutes.	3.98

### XIV. WIDER FORMS OF INNOVATION

Innovation is not wholly about the development or use of technology or other forms of product (goods and services) and process change. Enterprises can also change their behavior or business strategies to make themselves more competitive, often in conjunction with product or process innovation, but also as independent means of improving competitiveness. Enterprises were asked whether they had made major changes to their business structure and practices in the three-year period 2004 to 2006. The findings are summarized in Table 8.

<i>Table 8 : Wider forms of innovations</i>	<b>percentages</b>
New organizational structure	45.5
Change in marketing strategy	58.3
Change in corporate strategy	54.5
Advanced management techniques	63.6

The results were initially summarized using statistics (means and frequencies percentages) to provide a better understanding of the respondents and characteristics of the responding companies.

From the 86 distributed questionnaires, 50 were completed and returned for the response rate 58.13 %. 80 % of Sistan and Baluchestan SMEs operate at a regional level, about 44 % at Iran level and 0 % worldwide. Just under a quarter (20 per cent) of businesses reported any exports for the years 2006\_2008 (see figure 3).

Innovation takes place through a wide variety of business practices, and a range of indicators can be used to measure its level within the enterprise or in the economy as a whole. These include Internal R & D, External R & D, Acquisition of machinery equipment and software and hardware, Acquisition of external knowledge, Training, All forms of design, Changes to product or service design, Market research, Changes to marketing methods, launch advertising.

According to Table 3, overall, 64 % of enterprises were classed as being innovation-active during 2006-2008. The proportion of enterprises having participated in some innovation-related activity (64 %) shows that firms recognize the need to assign resources to innovation. The most commonly reported activities were in market research, followed by a considerable investment all forms of design. The internationalization of R&D seems to be a useful instrument to mitigate the effects of barriers to innovation often faced by SMEs (Tiwari and Buse 2007). During 2006-2009, about 45 % of enterprises participated in Internal and External R & D. Summing up; these early results seem to suggest that a larger share of enterprises is participating in just one mode of innovation behavior but the innovation which was occurred in Sistan and Baluchestan SMEs was new to the SME not to the national market..

In accordance with the total of the sample SMEs and the analysis of the Figure 4, we observe that the main barriers to innovation are economic factors namely, excessive economic risk, lack of financing, cost of financing and high cost to innovation. In what concerns the internal factors the lack of skilled personnel should be stressed. The factors associated with the lack of information on markets and governmental regulations are less restraining to innovation.

Among all obstacles, 'Excessive perceived economic risks' seems to be the foremost important obstacle faced by all SMEs. The Excessive perceived economic risk was cited being of 'high' importance by 75 per cent of the SMEs. On the other hand, only about 4.2 per cent of SMEs perceived this obstacle as 'not relevant' to their innovation activities.

'Lack of appropriate sources of finance' was cited as being of high importance by about 66.7 per cent of the SMEs and not relevant by about 4.2 per cent of them. These findings are consistent with the findings of Baldwin and Lin (2001) who in their study of impediments to advance technology adoption found cost-related problems being the most frequently reported by the Canadian manufacturing firms.

As recently as 2003 a report from the prestigious Gartner Research and Consulting Group suggested that 25 per cent of IT projects were not producing a realistic return on investment. In the same year, the UK Ministry of Defence was criticized for wasting £120m on a failed inventory project. For this reason Iranian SMEs are not interested in investment in costly projects (such as IT/IS) as the survey shows it. Worsening financial position of the firm suggests that when companies increase debt and reduce liquidity, then innovation activities decrease. This result is consistent with those of Freel (2000) and Chiao (2002). Additionally, because of higher risk exposure, firms may opt against using debt to finance innovation. Lenders who are risk averse may also be averse to funding risky innovation initiatives. As a result, SMEs might pursue relatively safe and non-innovative projects through use of internal capital (Galende and De la Fuente, 2003).

The lack of financial resources hinders many SMEs from initiating or – even worse – completing their innovative ideas. As reported in Table 3, 17.6 % of SMEs had abounded innovation activities. SMEs have problems to acquire loans because financial institutions are often reluctant to (co-)finance risky innovation projects. Another financial constraint refers to the problem of getting access to public funding for innovative ideas and bureaucratic application procedures associated with them. Further, it was pointed out that innovation projects must be delayed owing to regulatory reasons until the application has been approved.

However due to limited resources SMEs, in contrast to larger ones, rarely have the chance to establish the relationships needed.

'Innovation costs too high' was cited as being of 'high' importance by about 58.3 per cent of the SMEs and 'not relevant' by about 4.2 per cent of them.

Shifting from an inward to a more outward orientation was raised because the costs and risks of innovation have increased and firms have become more specialized. The role played by research in firms' commercial strategies has also changed. As the range of technologies necessitated for innovation has spread out and technologies have become more complex, companies can no longer cover all relevant disciplines. Many key developments draw on a wide range of scientific and commercial knowledge, so that the need for co-operation among participants in different fields of expertise has become greater in order to reduce uncertainty, share costs and knowledge and bring innovative products and services to the market (OECD, 2000). According to table 7, The results of the survey on Sistan and Baluchestan province of Iran shows that in Iranian SMEs the most frequent partners for co-operation were suppliers (76 per cent of enterprises with co-operation agreements) and other business in their enterprise (72 per cent). Around 44 per cent of collaborators included universities amongst their partners.

SMEs that perceive "lack of customer's responsiveness to new products" show fewer propensities to innovate. This result is in accordance with the interactive model of innovation, with the market-pull approach and the Porter model. These approaches demonstrate that the satisfaction of the market requires the incorporation of innovations. Therefore, if the SMEs believe the market is not accepting the new products, it has no incentive to innovate, and then this consciousness ends up creating a barrier to innovation.

The business Dominated by established enterprise was cited as being of high importance by about 58 % of the SMEs.

In many cases, ICT significantly reduced the costs of outsourcing and co-operation with entities outside the firm. It has helped go down the natural monopoly character of services such as telecommunications; it is a key technology for speeding up the innovation process and reducing cycle times. It has played an important role in making science more efficient and linking it more closely to business When 58 % of the SMEs see the monopoly as a barrier to innovation, it shows that in the area of study, SMEs do not use ICT as much as they should.

The lack of qualified personnel was viewed as one of the most important constraining factor by about half of the SMEs. The study of Hoffman et al. (1998) supports these results, when defending the thesis that lack of qualified staff can be a serious constraint to the

development of the innovation process.

The study of Tiwari and Buse October (2007) indicated two reasons for scarcity of skilled labour:

- Demographic developments ("aging population") (Reinberg & Hummel, 2004)
- Lack of student interest in engineering and natural sciences (IWD (2007))

But the condition is different in Sistan and Baluchestan. Unemployment rate was reported 13.8 % in Spring 2009 and unemployment rate of people between 15\_24 years old was reported 29.0 % in Spring 2009 (see [www.amar.org.ir](http://www.amar.org.ir)).

Lack of information on market, governmental and international regulations were reported as the least important obstacles o innovation.

The survey sought information about motivation factors for innovation (Table 4). Respondents were asked to rank a number of drivers for innovating on a scale from no impact, through low, medium or high. Improved quality of products or services was cited as the main motivation factor by 64 % of SMEs and Improved flexibility of production or service provision and Reduced environmental impacts or improved health and safety are seen as important by almost 30 % of SMEs. The objectives of Reduced costs per unit produced or provided (61 %) and meeting regulatory requirements (by 59 %) were also widely reported.

Successful innovations often generate intellectual property that businesses will try to protect. The survey collected data on business perceptions of the relative importance of different means of protecting intellectual property such as registration of design, trademark, patent, copyright, secrecy, and complexity of design. Registration of design is cited as the most important way of protecting innovation by 71.4 % of Sistan and Baluchestan SMEs. Patent and Trademark are viewed as high important by 68.2 and 66.7 % of SMEs (see table 5).

Table 6 can show the overall status of each of Information resources more clearly. By a quick look at the table, it becomes obvious that the main Information source for Sistan and Baluchestan SMEs is clients or customers and followed by suppliers of equipment.

In the United States, the Bayh-Dole Act (1980) helped to strengthen the role of science in the innovation process and facilitate industry-university collaboration. But there is evidence that Universities and other higher education and Conferences, trade fairs, exhibitions are cited as important information resource to just about 20 % of studied SMEs. Also as it is cited before Sistan and Baluchestan SMEs have the least partnership with universities.

Innovation is not wholly about the development or use of technology or other forms of product (goods and services) and process change. Enterprises can also change their organizational structure, marketing strategy, corporate strategy, and advanced



management techniques to make themselves more competitive. As reported in table 8, 63.6 % of Iranian SMEs made changes to their management strategy during 2006-2008. As would be expected, great proportion of SMEs engaged in one or more of these changes. Advanced management techniques was most commonly reported, with the introduction implementing new organizational structures being least frequent.

## XV. CONCLUSION

Innovation affects firms' ability to compete successfully in an increasingly global market. This paper examines forces to innovation, and product, process, and management innovation activities and barriers to innovation among a sample of 88 Sistan and Baluchestan manufacturing SMEs located in the Sistan and Baluchestan province of Iran. The Sistan and Baluchestan province economic situation is interesting due to the need to increase the investment in innovation by manufacturing SMEs. This need is because recent regional GDP has not been growth in compare with three years ago.

In the selected case (Sistan and Baluchestan SMEs), an in-depth study of eleven barriers to innovation were done through distributing questionnaire. The research results revealed that the economic factors such as excessive economic risk, lack of financial resources, lack of availability of finance, and high cost of innovation have determined the propensity of SMEs about innovation. However, Lack of customer responsiveness and lack of qualified personnel were viewed as other important constraints to innovation.

The survey results indicate that innovation is also becoming increasingly popular among SMEs. After all, small SMEs often lack resources to develop and commercialize new product in house and as a result are more often inclined to collaborate with other enterprises in their own business. There is growing evidence that innovation in areas such as ICT or biotechnology draws increasingly and more directly on scientific progress. The idea of facilitating industry-university collaboration strengthens. The survey results show that Iranian SMEs are not collaborating with universities and higher education institutions nevertheless we expected based on the literature. Van de Ven (1986) argues that as individuals have access to more information about available innovations and are more globally informed about the implications of innovative ideas, they are better able to relate the "parts to the whole." In general, individuals with a broader awareness of the consequences and implications of innovative ideas facilitate the process of organizational innovation.

The survey results indicate that Sistan and Baluchestan SMEs prefer to engage more in market research, followed by a considerable investment in changes all forms of design. According to Morton (1971), Zaltman, Duncan, and Holbek(1973)

Organizations facilitate innovation through project teams or R & D departments. But there is evidence that Sistan and Baluchestan SMEs do not concentrate on R & D investment as one of the main innovation activities.

Enterprises reported market and internal sources as most important for information on innovation. This suggests that enterprises tend to rely on their own experience and knowledge coupled with information from customers and clients, suppliers.

The survey discovered that improved quality of goods/services increase the propensity of SMEs to innovate. And Also in the field of protection of innovation, Registration of design and Trademark were viewed as important ways of protecting innovation in Sistan and Baluchestan SMEs.

The results of the study may be useful for both government and SMEs. The finding can be used in the development of public policy aimed at supporting and encouraging innovation among SMEs in Sistan and Baluchestan.

When conducting a research, occurrences of some obstacle are inevitable and in fact it is difficult to find a research that has been carried out easily without facing any problem. This study is not an exception and some problems came up as well. The expectation about the response rate was not met. And also, there were financial questions about the amount of investment in innovation activities but none of the SMEs answered these kinds of questions.

It took more time than the estimated time (3 week), for the respondents to return the questionnaires. This alone resulted in change in the plans and the study fell a few days behind the schedule. The size of the sample is such that it is difficult to generate the finding of this study to the whole population of SMEs in Iran.

For further research it would be interesting to examine why Lack of unskilled labour is cited as an important barrier to innovation by 50 % of SMEs; however the unemployment of educated people is reported 29.0 % in Spring 2009. It would be also helpful to conduct researches which examine and compare barriers to innovation between SMEs in other countries and Iranian SMEs.

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# Diversified Portfolio Etf's: Performance Analysis & Optimizing the Return to Risk Ratio

By Dr. Rajnish Aggarwal

UIAMS

**Abstract** - The research study investigated the performance of eight Diversified Portfolio ETFs relative to market. For the purpose of evaluation four moments i.e. mean, standard deviation, skewness, and kurtosis were examined and thereafter the yearly as well as overall three yearly Sharpe and Treynor ratios of the Diversified Portfolio ETFs and S&P 500 index were compared. Regression analysis was also done to study the relationship of Diversified Portfolio ETFs with the S&P 500 index and also to calculate the coefficient of determination. The Study also used Asset allocation optimization model to maximize the Return to risk ratio of Diversified Portfolio ETFs. The study depicted that none of the Diversified Portfolio ETFs had higher three year average returns than that of the market index. The Three yearly Sharpe and Treynor ratios also indicated that only few ETFs outperformed the market. It was seen that the coefficient of determination was high when ETFs were regressed with the S&P 500 index which indicated that the maximum variation in the movement of ETFs was accounted for by the market and the ETFs were highly correlated with the S&P 500 during the last three years. The results also implied that if the investors want to invest in Diversified Portfolio ETFs then return to risk ratio will be maximized when he has invested the majority of his investments in iShares S&P Moderate Allocation fund and S&P Conservative Allocation Profile in last three years.

*GJMBR-A Classification: FOR Code: 150103 JEL Code: G11, G17, G32*



DIVERSIFIED PORTFOLIO ETFS PERFORMANCE ANALYSIS OPTIMIZING THE RETURN TO RISK RATIO

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## 1. INTRODUCTION

Exchange traded funds (ETFs) are index funds whose shares are listed on a stock exchange and traded like equity securities at market prices. ETFs allow investors to buy or sell shares of a fund that represents the collective performance of a selected group of securities. ETFs are designed to add the flexibility, ease and liquidity of stock trading to the benefits of traditional index-fund investing. ETFs are securities certificates that state legal right of ownership over part of a basket of individual stock certificates.

The Eight Diversified Portfolio ETFs used in the study were:-

### a) iShares S&P Moderate Allocation fund (AOM)

AOM Tracks the S&P Target Risk Moderate Index. The Index is designed to measure the

performance of S&P's proprietary moderate target risk allocation model

### b) S&P Growth Allocation Profile (AOR)

AOR Tracks the S&P Target Risk Growth Index. The Index is designed to measure the performance of S&P's proprietary growth target risk allocation model.

### c) S&P Conservative Allocation Profile (AOK)

AOK Tracks the S&P Target Risk Conservative Index. The Index is designed to measure the performance of S&P's proprietary conservative target risk allocation model

### d) S&P Aggressive Allocation Profile (AOA)

AOA Tracks the S&P Target Risk Aggressive Index. The Index is designed to measure the performance of S&P's proprietary aggressive target risk allocation model.

### e) RiverFront Tactical Balanced Growth Portfolio Profile (PAO)

PAO Tracks the RiverFront Global Tactical Balanced Growth Index. The Index is optimized relative to a growth risk profile targeting approximately 80% equities and 20% taxable fixed income.

### f) RiverFront Tactical Growth & Income Portfolio Profile (PCA)

PCA Tracks the RiverFront Global Tactical Balanced Growth & Income Index. The Index is optimized relative to a growth risk profile targeting approximately 50% equities and 50% fixed-income securities.

### g) Claymore CEF GS Connect ETN Profile (GCE)

GCE Tracks the Claymore CEF Index. The Claymore CEF Index is a 100% rules-based index that is designed to track the performance of a weighted basket of closed-end funds selected based on liquidity, income distribution and market valuation, among other factors.

### h) Ibbotson Alternative Completion Portfolio Profile(PTO)

PTO Tracks the Ibbotson Alternative Completion Index. The Index is compiled and calculated by Ibbotson, using a proprietary methodology to select underlying ETFs, ETNs, and equity and fixed-income securities covering a group of asset classes and investment strategies.

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## II. METHODOLOGY

For the research purpose, eight Diversified Portfolio ETFs were used and compared it with the S&P 500 index for the time period starting from January 2009 to January 2012. The study used four moments i.e. Mean, Standard deviation, Kurtosis and Skewness to study the return characteristics of the ETFs and market. Kurtosis characterized the relative peakedness or flatness of a distribution compared with the normal distribution. Positive kurtosis indicated a relatively peaked distribution. Negative kurtosis indicated a relatively flat distribution. Skewness characterized the degree of asymmetry of a distribution around its mean. Positive skewness indicated a distribution with an asymmetric tail extending toward more positive values. Negative skewness indicated a distribution with an asymmetric tail extending toward more negative values. Thereafter, Sharpe Ratio and Treynor Ratio were calculated to analyze the performance of ETFs relative to the S&P 500 index.

The Sharpe Ratio, or Sharpe Index, measures the mean excess return per unit of risk in an investment asset or a trading strategy. The Sharpe Ratio is defined as:

$$S = \frac{E[R - R_f]}{\sigma} = \frac{E[R - R_f]}{\sqrt{\text{Var}[R - R_f]}}$$

where R is the asset return, R<sub>f</sub> is the return on a benchmark asset, such as the risk free rate of return, E[R - R<sub>f</sub>] is the expected value of the excess of the asset return over the benchmark return, and  $\sigma$  is the standard deviation of the excess return (Sharpe 1994). The Sharpe Ratio is used to characterize how well the return of an asset compensates the investor for the risk taken. When comparing two assets each with the expected return E[R] against the same benchmark with return R<sub>f</sub>, the asset with the higher Sharpe Ratio gives more return for the same risk.

Treynor ratio, also known as reward to volatility ratio, or Treynor's measure a risk-adjusted measure of return based on systematic risk. It is similar to the Sharpe ratio, with the difference being that the Treynor ratio uses beta as the measurement of volatility.

Treynor's ratio is calculated as:

$$T = \frac{r_i - r_f}{\beta_i}$$

where:

$T$  - Treynor ratio,  
 $r_i$  - return,

$r_f$  - risk free rate  
 $\beta_i$  - Beta

The beta for the ETFs was calculated by using the S&P 500 as an independent variable.

The R-Squared or Coefficient of Determination indicates the percentage of the variation in the dependent variable can be explained and accounted for by the independent variables in this regression analysis. The Multiple Correlation Coefficient (Multiple R) measures the correlation between the actual dependent variable (Y) and the estimated or fitted (Y) based on the regression equation. This is also the square root of the Coefficient of Determination (R-Squared). Regression analysis was also used to determine the relationship of S&P 500 with each of the eight Diversified Portfolio ETFs. In Asset allocation optimization model, Stochastic Optimization was used to allocate the investor's investment to the Diversified Portfolio ETFs so that the return to risk ratio was maximized subject to various constraints and requirements. That is, to allocate 100% of an investor's investment among Diversified Portfolio ETFs. A simulation with 100 trials was run, and then an optimization was run. Then this process was replicated 20 times to obtain the optimal results.

## III. ANALYSIS

The exhibits I and II reflected the yearly returns for eight Diversified Portfolio ETFs and S&P 500 index for last three years. After the recession in 2008 when the markets were recovering, it was seen that most of the Diversified Portfolio ETFs were giving positive returns with highest being given by GCE i.e. 31.48% which indicated that only two out of eight were having returns higher than that of S&P 500 index in 2009. In 2010 due to economic slowdown in US the returns started decreasing and only one ETF i.e. AOA with the returns value of 20% was having higher returns than that of the market. In 2011 when most of the ETFs were giving negative returns only AOK with a value of 3% was having higher returns than that of the market. It was also found that yearly average returns for none of the ETFs was higher as than that of S&P 500 index having just 17.29% value.

Exhibit III indicated that mean monthly returns of all eight ETFs with a maximum value of 1.3% were lower than that of S&P 500 index having a value of 1.4%. The standard deviation values implied that the volatility of returns in all the ETFs ranged from 1.4% to 5.2% with AOA having the maximum value of 5.2% was lower as compared with that of S&P 500 which is having a value of 5.3% which showed that ETFs were less risky as compared to market. The negative kurtosis values of most of ETFs and S&P 500 index suggested that distribution curves for the three year mean returns was less leptokurtic (which means that lesser values were

close to the mean returns). The negative Skewness values of most of the ETFs and S&P 500 index suggested that distribution curves of returns were negatively skewed which indicated that the tail on the left side of the probability density function is longer than the right side and the bulk of the values (possibly including the median) lie to the right of the mean.

Exhibits IV and V reflected that the six out of eight Diversified Portfolio ETFs ranging between 1.69 and 1.8 had higher Sharpe and Treynor ratios than that of S&P 500 index which indicated that six ETFs outperformed the market in 2009. For the year 2010, the Sharpe ratio for all the ETFs varied from 0.62 to 1.2 whereas the Treynor ratio varied from 0.12 to 0.25 which indicated that the Sharpe and Treynor ratio of two ETFs was higher than that of S&P 500 index. Finally, in the year 2011 the Sharpe ratio for the ETFs varied from -0.4 to 0.4 and the Treynor ratio from -0.08 to 0.08 but the Sharpe ratio was highest for AOK which indicated that only AOK outperformed the market.

Exhibits VI and VII showed the three yearly Sharpe and Treynor Ratios for all ETFs and S&P 500 index. The three yearly Sharpe ratio for all ETFs varied from 0.34 to 0.64 indicated that for only two out of eight ETFs it was higher than that of S&P 500 which indicated that only two of the ETFs outperformed the market. Similarly the treynor ratio was in tandem with the Sharpe ratio and indicated that only few ETFs outperformed the market in last three years.

It was seen from the Exhibits VIII that S&P 500 index was used as independent variable for regression analysis taking each of the Diversified Portfolio ETFs as dependent variables. When regression analysis was done it was found that the coefficient of determination (COD) ranged from 0.85 to 0.99 which showed that when S&P 500 was used to estimate the movement of Diversified Portfolio ETFs, then 99% of variation was captured by this index, rest 1% was explained by exogenous factors while correlation coefficient(R) ranged from 0.92 to 0.99 which indicated that the ETFs were highly correlated with the market.

Exhibit IX indicated the Asset Allocation Optimization Model of Diversified Portfolio ETFs with assigning equal investments to all Diversified Portfolio ETFs before running the optimization. It was seen that when equal investments were assigned to the Diversified Portfolio ETFs then the return to risk was 1.2 with the portfolio returns of just 6.2% and volatility was 4.9% which indicated that the portfolio of ETFs was not optimized.

Exhibit X indicated the Asset Allocation Optimization Model of Diversified Portfolio ETFs with assigning 0% to 100% of the investments to all Diversified Portfolio ETFs after running the optimization. It was seen that the Return to risk ratio was increased to 1.4 while the portfolio returns decreased to 5.2% and portfolio risk to 3.6%. The maximum investment

allocation of 41% was assigned to AOK ETF. So it can be said that if the investors want to invest in Diversified Portfolio ETFs then return to risk ratio will be maximized when he has invested the majority of his investments in iShares S&P Moderate Allocation fund and S&P Conservative Allocation Profile in last three years.

#### IV. CONCLUSION

The research study investigated the performance of Diversified Portfolio ETFs relative to market. The results implied that only few of the Diversified Portfolio ETFs had higher yearly returns than that of market during last three years. It was also seen that Diversified Portfolio ETFs had lower volatility in returns than S&P 500 index. The study also depicted that none of the Diversified Portfolio ETFs had higher three year average returns than that of the market index. The yearly Sharpe and Treynor ratios indicated that most of ETFs outperformed the S&P 500 index in only one year out of last three years. The Three yearly Sharpe and Treynor ratios also indicated that only two ETFs outperformed the market. The results also implied that the coefficient of determination was high when ETFs were regressed with the S&P 500 index which indicated that the maximum variation in movement of ETFs was explained by the market. It was also found that the ETFs were highly correlated with the S&P 500 during the last three years. The results also implied that if the investors want to invest in Diversified Portfolio ETFs then return to risk ratio will be maximized when he has invested the majority of his investments in iShares S&P Moderate Allocation fund and S&P Conservative Allocation Profile in last three years.

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YEAR	AOM	AOA	AOK	AOR	PAO	PCA	GCE	PTO	S&P 500
2009	14.26%	29.63%	9.00%	20.38%	25.28%	21.04%	31.48%	31.38%	30.03%
2010	8.41%	20.02%	6.09%	12.82%	15.00%	10.19%	11.52%	10.81%	19.76%
2011	1.29%	-0.17%	3.01%	0.97%	-6.17%	-2.18%	-3.85%	-1.54%	2.09%
AVERAGE	7.99%	16.49%	6.03%	11.39%	11.37%	9.68%	13.05%	13.55%	17.29%

Exhibit I : Yearly returns of Diversified Portfolio ETFs and S&P 500 index

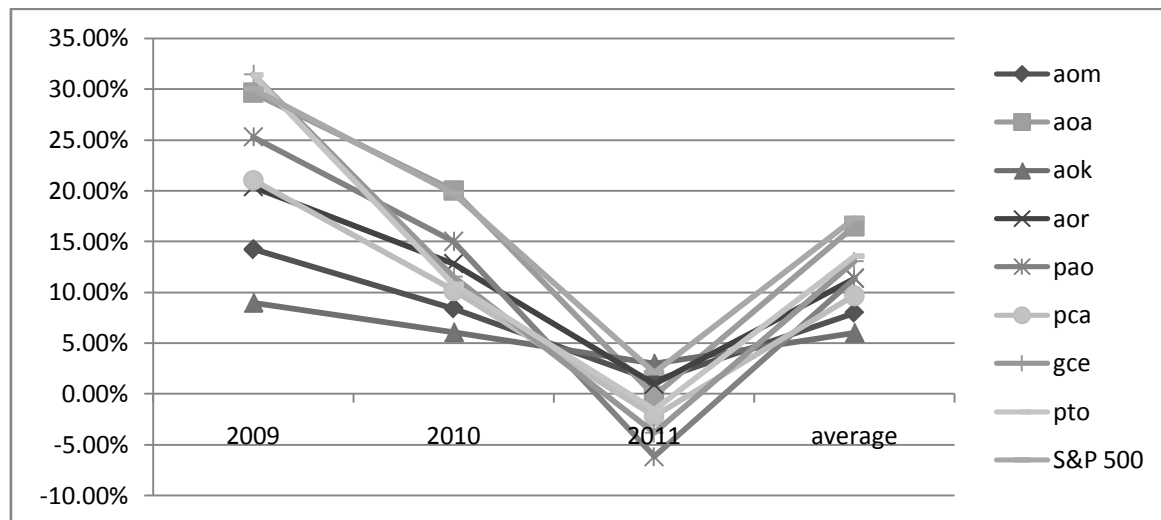


Exhibit II : Comparison of yearly returns of Diversified Portfolio ETFs and S&P 500 index

	AOM	AOA	AOK	AOR	PAO	PCA	GCE	PTO	S&P 500
Mean	0.007	0.014	0.005	0.009	0.010	0.008	0.011	0.011	0.014
Standard Deviation	0.023	0.052	0.014	0.035	0.048	0.035	0.050	0.050	0.053
Kurtosis	-0.349	-0.624	0.088	-0.561	-0.427	-0.078	1.448	0.260	-0.326
Skewness	-0.361	-0.210	-0.324	-0.264	-0.354	0.025	-0.321	-0.329	-0.371
Range	0.094	0.192	0.063	0.135	0.186	0.153	0.269	0.215	0.218
Minimum	-0.051	-0.091	-0.032	-0.066	-0.092	-0.064	-0.126	-0.104	-0.110
Maximum	0.043	0.102	0.030	0.069	0.094	0.089	0.143	0.111	0.108
Sum	0.237	0.490	0.179	0.338	0.343	0.288	0.389	0.406	0.515

Exhibit III : Descriptive Statistics of monthly returns of Diversified Portfolio ETFs and S&P 500 index

YEAR	AOM	AOA	AOK	AOR	PAO	PCA	GCE	PTO	S&P 500
2009	1.758	1.638	1.809	1.693	1.510	1.737	1.808	1.808	1.642
2010	1.040	1.108	1.230	1.067	0.897	0.841	0.661	0.622	1.083
2011	0.037	-0.065	0.410	-0.002	-0.430	-0.264	-0.279	-0.147	0.060

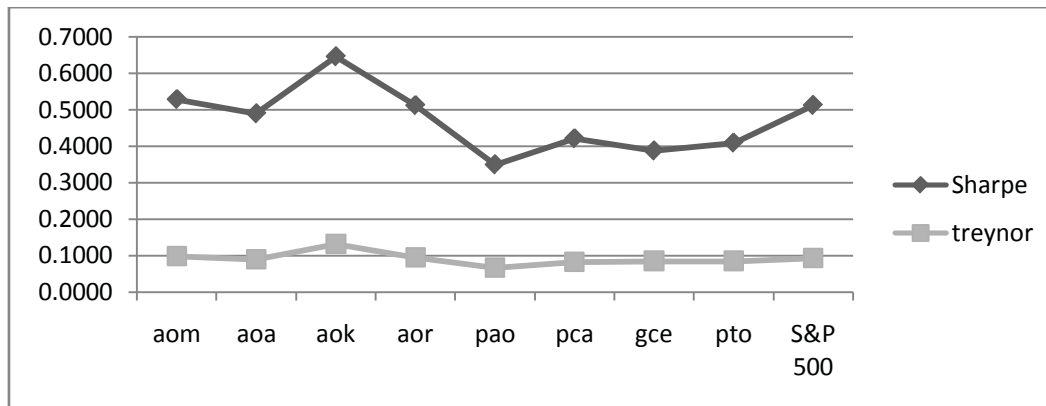
*Exhibit IV :* Comparison of Yearly Sharpe Ratio of ETFs and S&P 500 index

YEAR	AOM	AOA	AOK	AOR	PAO	PCA	GCE	PTO	S&P 500
2009	0.328	0.301	0.368	0.312	0.288	0.337	0.396	0.375	0.299
2010	0.194	0.204	0.250	0.197	0.171	0.163	0.145	0.129	0.197
2011	0.007	-0.012	0.083	0.000	-0.082	-0.051	-0.061	-0.030	0.011

*Exhibit V :* Comparison of Yearly Treynor Ratios of ETFs and S&P 500 index

Year	AOM	AOA	AOK	AOR	PAO	PCA	GCE	PTO	S&P 500
Sharpe	0.528	0.489	0.646	0.512	0.349	0.421	0.387	0.409	0.512
treynor	0.098	0.090	0.131	0.094	0.066	0.082	0.085	0.085	0.093

*Exhibit VI :* Three yearly Sharpe & Treynor Ratios of ETFs and S&P 500 index



*Exhibit VII :* Comparison of Three yearly Sharpe & Treynor Ratios of ETFs and S&P 500 index

	AOM	AOA	AOK	AOR	PAO	PCA	GCE	PTO
COD	0.98	0.99	0.95	0.99	0.92	0.96	0.85	0.91
R	0.99	1.00	0.97	1.00	0.96	0.98	0.92	0.95

*Exhibit VIII :* Regression Analysis of ETFs with S&P 500 index.

ASSET ALLOCATION OPTIMIZATION MODEL					
Asset Class Description	Annualized Returns	Volatility Risk	Allocation Weights	Required Minimum Allocation	Required Maximum Allocation
AOM	4.64%	8.04%	12.50%	0.00%	100.00%
AOA	9.20%	18.01%	12.50%	0.00%	100.00%
AOK	3.56%	4.90%	12.50%	0.00%	100.00%
AOR	6.52%	11.96%	12.50%	0.00%	100.00%
PAO	6.22%	16.66%	12.50%	0.00%	100.00%
PCA	5.46%	12.04%	12.50%	0.00%	100.00%
GCE	7.11%	17.34%	12.50%	0.00%	100.00%
PTO	7.47%	17.29%	12.50%	0.00%	100.00%
Portfolio Total	6.2729%	4.97%	100.00%		
Return to Risk Ratio	1.2633				

*Exhibit IX :* Asset Allocation Optimization Model of Diversified Portfolio ETFs with assigning equal investments to all Diversified Portfolio ETFs before optimization.



*Exhibit X* : Asset Allocation Optimization Model of Diversified Portfolio ETFs with assigned unequal investments to all Diversified Portfolio ETFs after optimization.



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# Concentration and Competition in the Non- Banking Sector: Evidence from Bangladesh

By S. M. Sohrab Uddin & Anupam Das Gupta

*University of Chittagong, Bangladesh*

**Abstract** - The development of non-bank financial institution as a financial intermediary complementary to commercial bank is noticeable not only in developed countries but also in developing countries, and Bangladesh is in no exception. Started in 1981, the size of the non-banking sector has been increased in both absolute and relative terms. However, the research on the sector remains substantially insignificant. Most importantly, analysis of the market structure of the nonbanking industry has been a lacking in the available existing literature. Keeping this in mind, this paper aims at addressing the market structure of the sector and its change over time by adopting concentration and competition measures based on asset and loan figures with a sample period of 14 years from 1997-2010. The findings report a highly concentrated market in 1997 and over the years there has been a considerable reduction in concentration, which means an increase of competition during the sample period.

**Keywords** : Concentration, Competition, Non-bank financial institutions and Bangladesh.

**GJMBR-B Classification**: FOR Code: 150203 JEL Code: G02, P52, L22



*Strictly as per the compliance and regulations of:*



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S. M. Sohrab Uddin<sup>α</sup> & Anupam Das Gupta<sup>σ</sup>

**Abstract** - The development of non-bank financial institution as a financial intermediary complementary to commercial bank is noticeable not only in developed countries but also in developing countries, and Bangladesh is in no exception. Started in 1981, the size of the non-banking sector has been increased in both absolute and relative terms. However, the research on the sector remains substantially insignificant. Most importantly, analysis of the market structure of the non-banking industry has been lacking in the available existing literature. Keeping this in mind, this paper aims at addressing the market structure of the sector and its change over time by adopting concentration and competition measures based on asset and loan figures with a sample period of 14 years from 1997-2010. The findings report a highly concentrated market in 1997 and over the years there has been a considerable reduction in concentration, which means an increase of competition during the sample period.

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## 1. INTRODUCTION

The financial system is the ultimate engine for achieving economic prosperity of a country, and is involved in the mobilization of financial resources from the surplus to the deficit sector. Primarily the major responsibility is assigned to banks for the channelization of funds in most of the countries, particularly in developing countries. However, the development of both banks and non-bank financial institutions (henceforth NBFIs) are necessary for assuring a strong and stable financial system for the country as a whole (Pirtea, Iovu, & Milos, 2008; Raina & Bakker, 2003). In addition, NBFIs add power to the economy in such a way that enhances the resilience of the financial system to economic crisis (Carmichael & Pomcerleano, 2002). These NBFIs offer wide range of products and services to mitigate the financial intermediation gap and thereby, play an important complementary role of commercial banks in the society (Shrestha, 2007; Sufian, 2008;

Vittas, 1997). According to Ahmed and Chowdhury (2007), the fundamental limitations existed in the banking sector are, in fact, laid down the foundation of the accelerated development process of NBFIs. Firstly, the regulations adopted by the central bank of a country do not allow banks to embrace financial services for all areas of business; secondly, banks always face a mismatch in maturity intermediation since they have to fulfill the long-term financing needs with short-term resources; and finally extending the operational horizon through product innovations is not always possible for banks. These areas create new opportunities for the NBFIs to grab with utmost success. As a result, the NBFIs are nowadays treated as an important sub-sector of the financial system, which has been expanding rapidly and attaining importance on a continuous basis due to their ability to meet the diverse financial requirements of business enterprises (Islam & Osman, 2011).

The degree of concentration and competition and their changes over time have been analyzed by many researchers to evaluate the structure of the banking industry. Various changes in the banking industry initiated by the financial liberalization policy make the analysis even more important to the policymakers. However, the research on various issues of NBFIs remains substantially scarce (Sufian, 2008), in spite of the fact that recent emergence of NBFIs as financial intermediaries is noticeable not only in developed countries but also in developing countries. Empirical evidence to evaluate the concentration and competition of the non-banking sector stays even more insignificant, particularly in the context of developing countries.

Although both direct and indirect forms<sup>1</sup> of financial intermediation are available in Bangladesh, similar to many developing countries the indirect form dominates the other form in the financial market to a great extent (Beck & Rahman, 2006; Uddin & Suzuki, 2011). The journey of NBFIs was started in 1981, ten years after the independence of the country. A private sector NBFI, namely, Industrial Promotion and Development Company (IPDC) was the pioneer in the sector in Bangladesh. Over the years, the non-banking sector has grown in numbers as many state-owned, private, and joint-venture firms started to join the sector, and by the end of 2010 a total of 35 firms were reported by the Ministry of Finance as NBFIs. The size of the non

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<sup>1</sup> In case of direct finance, deficit budget units collect funds from surplus budget units through stock market, whereas in case of indirect finance, banks and NBFIs play the role of financial intermediaries between deficit budget units and surplus budget units.

banking sector in respect of both absolute and relative terms has also expanded over time. For instance, the absolute size of the non-banking sector, measured in terms of assets, was BDT<sup>2</sup> 62.35 billion in 1997 and by the end of 2010 it became BDT414.11 billion. On the other hand, the relative size of the non-banking sector, measured in terms of assets relative to gross domestic product (GDP), increased to 5.98 per cent in 2010 from 3.45 per cent in 1997. Moreover, the importance of non-banking sector has been accelerated rapidly due to the development of new areas of business operations like leasing, term lending, housing and real estate financing, merchant banking, factoring, and so on by NBFIs (Ahmed & Chowdhury, 2007; Debnath, 2004; Hossain & Shahiduzzaman, 2002; Nasreen & Jahan, 2007). But the research on concentration and competition of the non-banking sector remains entirely unexplored. At this backdrop, this study is undertaken to assess the degree of concentration and competition and their changes over time and thereby, looked at fulfilling the demanding gap with regard to the issue.

The contribution of this paper can be expressed in three different ways. Firstly, it addresses to analyze the structure of the non-banking sector of Bangladesh, and by doing this it shows the scenario of other developing countries with similar financial structure. Secondly, the findings of this study will generate some guidelines for the policymakers to formulate policies and strategies with regard to the structure of the non-banking sector. Finally, it also raises some issues to deal with through further research.

The later part of this paper is organized in the following manner: section two describes the available literature concerning the dynamics of concentration and competition. It also focuses on the previous studies carried out in Bangladesh to tackle the issues relating to the non-banking sector. Section three elaborates the overview of the non-banking sector of Bangladesh. Section four introduces the data and methodology adopted for the study. Section five displays the empirical results of the study and section six concludes with creating some future research opportunities.

## II. REVIEW OF THE LITERATURE WITH REGARD TO CONCENTRATION AND COMPETITION

Concentration and competition have been regarded as two distinct aspects of an industry by the literature and the researchers express their views in favor of either concentrated or competitive market structure. Beck, Demircug-Kunt, and Levine (2006) opine that the possibility of occurring financial crisis in a concentrated market is less likely. This is due to the fact that financial institutions in a concentrated market delegate proper monitoring and screening functions as

desired by the central bank of an economy. In addition, increased competition is always accompanied by less incentive for monitoring credit, which can badly harm the financial soundness of an economy as a whole (Casu, Ferrari, & Zhao, 2010). Hellmann, Murdock, and Stiglitz (1997) stress on the importance of achieving optimal scale in a market and according to them accomplishing the objective is more realizable in a concentrated market than in a competitive market.

On the contrary, according to Berger, Demircug-Kunt, Levine, & Haubrich (2004), government decision to foster concentrated market in a country leads to adverse affects and corresponding miserable economic efficiency. This is because market concentration produces higher revenues for the lenders in a financial market whereas lower benefits for the consumers (Abbasoglu, Aysan, & Gunes, 2007). Ratnayake (1999) also opines that competition assures consumer benefit along with utmost utilization of available scarce resources. Similarly, Acs and Audretsch (1988) and Mitton (2008) favor the competitive market structure by arguing, respectively, that higher level of concentration discourages the innovation process to a great extent, and the degree of economic volatility increases with the rise of market concentration. Calem and Carlino (1991) and Barth, Caprio, and Levine (2004) also report similar opinion like Mitton (2008) in their respective studies.

Although there is no agreement in the literature in favor of either of the two available industrial structures, it is still advisable to analyze the structure of a market to adopt welfare oriented public policies (Bikker & Haaf, 2002). Moreover, the structure of an industry influences both resource allocation and distribution of economic benefit (M'Chirgui, 2006) and thus, examining the structure of an industry is really crucial in evaluating its nature and behavior (Dunning, 1974). The measurement of concentration and competition during a particular year and their changes over time provide a clear indication about the structure of an industry.

With regard to the literature concerning the non-banking sector, limited number of studies has been conducted so far in Bangladesh. Hossain and Shahiduzzaman (2002) focus on the importance of non-banking sector as a vehicle for the economic development of the country and identify the underlying problems existed within the sector. Ahmed and Chowdhury (2007) deal with different features, contribution, and challenges faced by NBFIs in Bangladesh. At the same time they also focus on performance analysis of NBFIs by adopting traditional financial indicators like current ratio, debt-equity ratio, productivity ratio, return on equity, etc. and report that in spite of the presence of several constraints existed in the sector NBFIs have been performing considerably well. Nasreen and Jahan (2007) conduct a research on

<sup>2</sup> BDT stands for Bangladesh Taka, and Taka is the local currency of the country.

leasing companies only regarding their accounting practices. However, none of the above mentioned studies analyze the industrial structure of the non-banking sector of Bangladesh, which creates an opportunity to deal with through an investigation.

### III. OVERVIEW OF THE NON-BANKING SECTOR OF BANGLADESH

The financial sector of Bangladesh encompasses of bank financial institutions, NBFIs, insurance companies, and stock markets, and at present 47 scheduled banks<sup>3</sup> and two stock exchanges are operating under the bank-based system and the market-based system respectively. Bangladesh Bank is the central bank of the country and therefore, is responsible for regulating and supervising the bank-based system. At the same time, as a supreme authority of the indirect form of financial intermediation, Bangladesh Bank is also responsible for controlling the activities of all NBFIs. On the other hand, the stock exchanges are operated under the guidance and monitoring of Securities and Exchange Commission (SEC), Bangladesh.

During the initial stage of development, the NBFIs were governed by Bangladesh Bank as per the provision stated in Chapter V of the 'Bangladesh Bank Order 1972'. Later on, a new order was promulgated by Bangladesh Bank in the name of 'Non Banking Financial Institutions Order' in 1989 with a view to assuring better regulation and supervision of the sector. However, regulatory deficiencies of this order with regard to the

activities of NBFIs and statutory liquidity requirement urged the central bank to announce a new act in 1993 in the name of 'Financial Institutions Act' (Ahmed & Chowdhury, 2007; Barai, Saha, & Mamun, 1999). From then on, all NBFIs in Bangladesh have been licensed and controlled under this act.

Although the major business of most of the NBFIs is lease financing, still a handful number of NBFIs involves in different financing activities, namely, term lending, house financing, merchant banking, equity financing, venture capital financing, project financing, financing to pilgrimage, etc. NBFIs also extend services to various sectors like textile, agriculture, small and cottage, chemicals, trading, pharmaceuticals, transport, food and beverage, leather products, and construction and engineering.

Table 1 represents the position of different types of NBFIs in Bangladesh in the year 2010. The total number of NBFIs is 35 in 2010 out of which 10 are domestic and foreign joint venture NBFIs, 20 are privately owned NBFIs, and 5 are state owned NBFIs. In 1997, the total number was 19 out of which 7 were domestic and foreign joint venture NBFIs, 9 were privately owned NBFIs, and 3 were state owned NBFIs. Among all NBFIs, privately owned NBFIs hold the majority of the market share by capturing 74.74 per cent, 57.43 per cent, and 60.27 per cent of deposits, loans and advances, and assets respectively. State owned NBFIs collectively retain higher market share than joint venture NBFIs in terms of deposits and assets, but lower market share in terms of loans and advances.

*Table 1 : Position of Different Types of Non-banks in 2010 (Amount in million BDT except no. of non-banks and no. of employees)*

Type of Ownership	Deposits		Loans and Advances		Assets	
	Amount	%	Amount	%	Amount	%
Joint Venture	24,216	11.32	61,222	22.13	76,986	18.59
Privately Owned	159,903	74.74	158,880	57.43	249,561	60.27
State Owned	29,835	13.94	56,548	20.44	87,561	21.14
Total	213,954	100.00	276,650	100.00	414,108	100.00
Type of Ownership	Income	Expenditure	No. of Non-Banks		No. of Employees	
Joint Venture	7,371	4,699		10		876
Privately Owned	21,270	16,050		20		27,255
State Owned	9,287	4,785		5		2,740
Total	37,928	25,534		35		30,871

*Source : Constructed by the Authors based predominantly on Ministry of Finance publication, few missing data are collected from the annual reports of respective NBFIs.*

### IV. DATA AND METHODOLOGY

In order to compute concentration and competition, both the asset and loan figures are used in this study to ascertain the market shares of the NBFIs with a sample period of 14 years from 1997-2010. The

data are collected from various issues of 'Bank and Financial Institutions' Activities', a yearly publication of the Ministry of Finance of the government of Bangladesh, and is published in local language in the name of 'Bank O Arthik Pratisthansamuher Karjaboli'. All NBFIs reported in this publication in a particular year are considered for that year by the present study.

This study adopts both discrete and cumulative measures of concentration for addressing the level of concentration in the non-banking sector of Bangladesh.

<sup>3</sup> According to Article-2 of the Bangladesh Bank Order-1972, a scheduled bank means a bank which is included in the list of banks maintained under sub-clause (1) of clause (2) of Article 37 (Debnath, 2004).



The fundamental difference between discrete and cumulative measures is that the former usually consider the market share of the largest non-bank (s) only whereas the latter consider the market share of all non-banks operating in an industry. K-non-bank concentration ratios (one-non-bank, two-non-bank, four-non-bank and six-non-bank) are the discrete measures, and Herfindahl-Hirschman index (HHI), Comprehensive Industrial Concentration index (CCI), Hall-Tideman index (HTI), and Entropy measure are the cumulative measures of concentration. Both discrete and cumulative measures focus on assigning weights and the present study follows the method provided by Bikker and Haaf (2002) for allocating weight for entropy measure, and the methods provided by Marfels (1971)

for assigning weights for K-non-bank concentration ratios, HHI, HTI, and CCI.

Table 2 provides a comparative analysis of the different concentration measures adopted by the present study. The measure following a particular one overcomes the limitation of the preceding measure. For instance, HHI overcome the limitation of K-non-bank concentration ratio by considering the market share of all non-banks operating in a particular year; HTI assigns more focus on number of non-banks and thus, overcomes the limitation of HHI; and CCI overcomes the limitations of the former measures by assuring both absolute and relative concentration instead of focusing entirely on absolute measurement.

Table 2 : Comparative Analysis of the different Concentration Measures

Name of concentration measures	Focus of the measure	Mathematical form	Range
K-non-bank concentration ratios	The market share of the k largest non-bank (s) depending upon the arbitrary selection process. Does not consider all non-banks operating in an industry in a particular year.	$CR_k = \sum_{i=1}^k s_i$ <p>where, <math>s_i</math> is the market share of the largest non-bank (s) and k is the number of largest non-bank (s).</p>	Zero and 1
HHI	The market share of all non-banks. Less responsive to the total number of non-banks operating in an industry.	$HHI = \sum_{i=1}^n s_i^2$ <p>where, <math>s_i</math> is the market share of each non-bank, and n is the total number of non-banks.</p>	1/n and 1
HTI	Assign more focus on number of non-banks in an industry.	$HTI = 1 / \left( 2 \sum_{i=1}^n i s_i - 1 \right)$ <p>where, <math>s_i</math> is market share of each non-bank, i represents the rank of a particular non-bank assigning in such a way the largest non-bank corresponds to a rank of 1, and n means total number of non-banks.</p>	Zero and 1
CCI	Accommodate both absolute and relative concentration with equal importance.	$CCI = s_1 + \sum_{i=2}^n s_i^2 (1 + (1 - s_i))$ <p>where, <math>s_1</math> is the market share of the leading non-bank, <math>s_i</math> is the market share of each non-bank, and n is the total number of non-banks.</p>	Decimal fraction (which is usually greater than the absolute market share of the largest non-bank) and 1
Entropy measure	Smaller absolute weight is assigned to the largest non-banks with higher market share.	$E = - \sum_{i=1}^n s_i \log_2 s_i$ <p>where, <math>s_i</math> is the market share of each non-bank, and n is the total number of non-banks.</p>	Zero and $\log_2 n$

Source: Constructed by the Authors based on Bikker and Haaf (2002)

With regard to the measure of competition, two types of approaches are commonly available: structural approaches and non-structural approaches. This paper relies on the structural approaches for assessing the competition. According to the structural approaches, a market with a high level of concentration is associated with a lower level competition and vice versa (Deltuvaite, Vaskelaitis, & Pranckeviciute, 2007; Wanniarachchige & Suzuki, 2010). Thus, these structural approaches usually link competition to Concentration (Bikker & Haaf, 2002).

## V. EMPIRICAL RESULTS

The results generated by all concentration ratios based on the asset figures during the sample period are reported in table 3. It also displays the change in the number of institutions reported by the Ministry of Finance as NBFIs due to the emergence of new firms in the non-banking sector. The table states that the market share of the largest NBFIs is reduced from 43.91 per cent in 1997 to 27.76 per cent in 2010. Similarly, two-non-bank, four-non-bank, and six-non-bank concentration ratios also report similar changes in the non-banking sector. For instance, the two-non-bank concentration ratio has reduced by 49.82 per cent, the four-non-bank concentration ratio has decreased by 41.43 per cent, and the six-non-bank concentration ratio has lessened by 37.02 per cent during the period under study. However, two, four, and six largest NBFIs are still collectively maintaining a substantial percentage of the market share by reporting 37.95 per cent, 50.93 per cent, and 59.62 per cent correspondingly of the total non-banking sector's assets.

The score provided by the HHI has reduced from 0.3034 to 0.1083 during the period 1997-2010, which indicates a reduction of concentration in the non-banking sector. Concerning the HHI, the non-banking sector of Bangladesh can be evaluated by using the horizontal merger guideline provided by the US Department of Justice. The guideline of the department considers an index of 10,000 as a symbol of monopoly and the score generated by HHI can be represented in terms of 10,000 to identify the nature of the market structure of an industry. A market with an index less than 1,000 can be represented as a very low concentrated market, a market with an index of 1,000-1,800 can be categorized as a moderately concentrated market, and a market with an index exceeding 1,800 can be reported as a highly concentrated market (Deltuvaite, et al., 2007; Park, 2009). According to this guideline, the non-banking market of Bangladesh was related to an index of 3,034 in 1997, and hence it was a highly concentrated market during that time. However, in 2010 the index becomes 1,083, which means that the market has converted into a moderately concentrated market from a highly concentrated market over the years.

Other concentration ratios also indicate similar trend of change in the non-banking sector. For instance,

the HTI and the CCI have reduced to 0.0701 and 0.3380 respectively in 2010 from 0.2665 and 0.6279 in 1997. In contrast, the entropy measure has increased to 4.1017 in 2010 from 2.2538 in 1997. The increase in entropy measure also testimonies a reduction in the level of concentration as it is conversely associated with the concentration.

Table 4 displays all concentration ratios computed on the basis of loan figures during the period under study. It reports that the share of the one, two, four, and six largest non-banks have reduced to 22.59, 31.95, 45.40, and 56.01 per cent respectively in 2010 from 53.05, 80.74, 90.15, and 96.37 per cent in 1997. Similar to the asset based calculation, the HTI, CCI, and entropy measure indicate a reduction in the level of concentration. The scores generated by the HTI, CCI, and entropy measure are 0.3215, 0.6761, and 1.9825 correspondingly in 1997, and by the end of 2010 they become 0.0646, 0.2909, and 4.2754. However, according to the HHI index, the non-banking sector of Bangladesh has switched to a very low concentrated market from a highly concentrated market as the index has reduced to 846 in 2010 from 3,650 in 1997.

Thus, all concentration techniques adopted in this study based on assets and loans report a reduction in the level of concentration in the non-banking sector of Bangladesh, and the loan figures portray a relatively higher level of declination than the asset figures. Linking this finding to competition by focusing on the structural approaches of measuring competition, it can be opined that there has been an increase in competition in the non-banking sector during the sample period.

Table 3 : Concentration Ratios based on Assets during 1997-2010

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
CRk1	0.4391	0.4338	0.4136	0.3839	0.3372	0.3164	0.2541	0.2230	0.2553	0.3181	0.2799	0.2936	0.2852	0.2776
CRk2	0.7563	0.7203	0.6985	0.6335	0.5539	0.5189	0.4786	0.4296	0.4297	0.4575	0.4039	0.4026	0.3750	0.3795
CRk4	0.8695	0.8386	0.8180	0.7735	0.7340	0.7029	0.6472	0.6150	0.5822	0.5992	0.5568	0.5531	0.5208	0.5093
CRk6	0.9467	0.9186	0.9016	0.8634	0.8193	0.7867	0.7330	0.6973	0.6634	0.6638	0.6333	0.6308	0.6038	0.5962
HHI	0.3034	0.2814	0.2641	0.2260	0.1866	0.1689	0.1409	0.1196	0.1184	0.1396	0.1160	0.1198	0.1119	0.1083
HTI	0.2665	0.2274	0.2106	0.1749	0.1413	0.1262	0.1056	0.0937	0.0837	0.0833	0.0757	0.0747	0.0714	0.0701
CCI	0.6279	0.5961	0.5760	0.5246	0.4702	0.4429	0.3933	0.3519	0.3550	0.3912	0.3520	0.3583	0.3445	0.3380
Entropy	2.2538	2.4609	2.5705	2.8473	3.1489	3.3093	3.5630	3.7621	3.8739	3.8030	3.9888	3.9888	4.0698	4.1017
No of Non-Banks	19	24	27	28	32	33	34	34	34	35	35	35	35	35

Source : Calculated by the Authors

Table 4 : Concentration Ratios based on Loans during 1997-2010

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
CRk1	0.5305	0.4545	0.4581	0.4209	0.3713	0.3462	0.3074	0.2630	0.2124	0.2239	0.2139	0.2278	0.2344	0.2259
CRk2	0.8074	0.7093	0.6712	0.6157	0.5397	0.4978	0.4760	0.4449	0.4238	0.4009	0.3621	0.3530	0.3416	0.3195
CRk4	0.9015	0.8261	0.7918	0.7384	0.6911	0.6399	0.6052	0.5681	0.5457	0.5113	0.4813	0.4842	0.4817	0.4540
CRk6	0.9637	0.9066	0.8775	0.8161	0.7852	0.7371	0.7029	0.6526	0.6315	0.5892	0.5662	0.5782	0.5782	0.5601
HHI	0.3650	0.2837	0.2689	0.2297	0.1873	0.1637	0.1424	0.1213	0.1087	0.0998	0.0885	0.0904	0.0906	0.0846
HTI	0.3215	0.2318	0.2029	0.1580	0.1333	0.1109	0.0982	0.0864	0.0783	0.0706	0.0671	0.0681	0.0676	0.0646
CCI	0.6761	0.5916	0.5659	0.5178	0.4640	0.4291	0.3975	0.3604	0.3294	0.3169	0.2953	0.3018	0.3033	0.2909
Entropy	1.9825	2.4473	2.6185	2.9411	3.2259	3.4738	3.6508	3.8378	3.9696	4.1024	4.2107	4.1968	4.2049	4.2754
No of Non-Banks	19	24	27	28	32	33	34	34	34	35	35	35	35	35

Source : Calculated by the Authors

## VI. CONCLUSION

The operations of NBFIs not only provide an alternative source of financing besides bank financial institutions but also facilitate a sound environment in the financial market. At the same time, the role of the sector is also vital in an economy particularly at the moment of financial crisis as it exhibits a cushion of safety for the economy as a whole. The limitations of the banking sector in designing products for all areas of business create the vacuum for the NBFIs to widen their activities through developing customized and quick-tailored non-conventional range of financial products.

The increasing number of NBFIs over the period indicates the popularity and acceptability of the sector within the financial market of Bangladesh. In view of this, the purpose of this paper is to have a close look at the structure of the non-banking sector and its change over the period in Bangladesh through adopting concentration and competition measures, which has been remained highly unexplored in the existing available literature. It is reported by the findings that the degree of competition has been intensified in the sector due to the reduction of concentration to a great extent. Seemingly, the liberalization policy adopted by the central bank for increasing the competitiveness of the financial sector is reflected in the results generated by all concentration measures used in this study. However, there is a substantial room for the regulator to improve the competitive position of the non-banking sector, since the largest non-banks still collectively hold a sizeable portion of the total market share. This can be done either through encouraging new participants or by expanding the branch network of the existing NBFIs.

This study can be extended in two ways. Firstly, instead of focusing only on traditional financial indicators, as it is done in most of the existing studies, the performance of NBFIs can be addressed by adopting both conventional financial indicators and frontier measures of performance to grab a clear picture; and secondly, a subsequent investigation can be done to identify the impact of competition on the performance of NBFIs.

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# An Investigation on Social Communication, Information Processing and Identification of Entrepreneurial Opportunities

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**Abstract** - This study examines the social networks, information processing and identification of entrepreneurial opportunities in small and medium businesses is allocated. The adjustment of the producer, personal efficacy, the power of entrepreneurship on the relationship between the processor and the coefficient of social networks, information processing and identification entrepreneurial opportunities have been evaluated. In this study, social networks based on previous research, including informal networks, mentors and advisors, family members and close friends and professional associations are. Information necessary to perform this study, 100 questionnaires from owners of small businesses and medium were collected and were analyzed. To check the validity of the questionnaire method Cronbach alpha coefficient alpha, which was equivalent Asfadh (72.6 %) is. Results show that the three sources of social information and informal networks (0.689) , teachers (0.649) and professional communities (0.578) on identifying entrepreneurial opportunities have a positive impact. Also, three personal efficacy variable, processor power and the coefficient information on the relationship between entrepreneurship and social networks to identify opportunities that impact. Impact on the efficacy of this negative relationship ( - 0.25), power data processor (0.29) and coefficient of Entrepreneurship (0.54) is. The results of path analysis techniques, the effect produced three variables adjusted personal efficacy, power, processor and information on the coefficient related entrepreneurship and social networks to identify opportunities, through the variable "participation in the professional community" and the relationship between informal networks and trainers (consultants) has no effect on the identified opportunities.

**Keywords** : *Information flow, information processing, social communication, considering entrepreneurship, identify opportunities.*

**GJMBR-B Classification**: *FOR Code:150304 JEL Code: L26*



AN INVESTIGATION ON SOCIAL COMMUNICATION, INFORMATION PROCESSING AND IDENTIFICATION OF ENTREPRENEURIAL OPPORTUNITIES

*Strictly as per the compliance and regulations of:*



# An Investigation on Social Communication, Information Processing and Identification of Entrepreneurial Opportunities

N. Afrooz

**Abstract** - This study examines the social networks, information processing and identification of entrepreneurial opportunities in small and medium businesses is allocated. The adjustment of the producer, personal efficacy, the power of entrepreneurship on the relationship between the processor and the coefficient of social networks, information processing and identification entrepreneurial opportunities have been evaluated. In this study, social networks based on previous research, including informal networks, mentors and advisors, family members and close friends and professional associations are. Information necessary to perform this study, 100 questionnaires from owners of small businesses and medium were collected and were analyzed. To check the validity of the questionnaire method Cronbach alpha coefficient alpha, which was equivalent Asfadh (72.6 %) is. Results show that the three sources of social information and informal networks (0.689) , teachers (0.649) and professional communities (0.578) on identifying entrepreneurial opportunities have a positive impact. Also, three personal efficacy variable, processor power and the coefficient information on the relationship between entrepreneurship and social networks to identify opportunities that impact. Impact on the efficacy of this negative relationship ( - 0.25), power data processor (0.29) and coefficient of Entrepreneurship (0.54) is. The results of path analysis techniques, the effect produced three variables adjusted personal efficacy, power, processor and information on the coefficient related entrepreneurship and social networks to identify opportunities, through the variable "participation in the professional community" and the relationship between informal networks and trainers (consultants) has no effect on the identified opportunities.

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## I. INTRODUCTION

Opportunity to identify key components of entrepreneurial process and one of the main factors to survival and success of entrepreneurs is considered. Reviewed and summarized with this study, we can get the opportunity to identify any accident, not as a result. The opportunities can be identified and the search result is analyzed and the detection result. But even entrepreneurs who only recognize the opportunities and search and systematic analysis to identify the opportunities do not; have certain

characteristics that it is referred to as efficacy. With factors such as social networks, more attention to information outside the organization, familiarity with the problems and needs of customers and also familiarity with market mechanisms in a particular activity, including the factors leading to this are entrepreneurial alertness. In the current changing world, organizations require for survival and success opportunities are permanently identified opportunities to identify key components of the entrepreneurial process is considered. Special definitions of many famous entrepreneurs, opportunity and understanding of the key components considered entrepreneurial process and the interest due so, how and when an opportunity to reach people, it seems quite natural. Identified two types of opportunities can be diagnosed. The first type, with external factors is stimulated. Opportunities identified in this way, the decision to establish business opportunities before has been identified. Such entrepreneurs searching for opportunities and they are filtering. The second type of opportunity to identify the internal factors is stimulation. These entrepreneurs will gain the problem for it has not been presented or a solution to satisfy the need that has not come and eat only after the decision to establish a business are. Opportunities as we mentioned earlier the main component of entrepreneurship and understanding through the identification and diagnosis of the things they do not recognize others, are carried out. But the difference is the opportunity to identify what is causing this? Entrepreneurs how opportunities are identified? Remit them or recognize? What information resources are used?

## II. DESCRIBES THE ISSUE

Today, countries entered the period of double importance to entrepreneurship have been improved so that economic growth and development of countries directly affected are considering entrepreneurship. Considering the obvious characteristics of entrepreneur's entrepreneurship as alertness, opportunity and sociology and hunting opportunities whereas today's economy is always subject to rapid change, entrepreneurs need to create opportunities for discovery and detection process constantly explore, and opportunities should be created. Opportunity

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identification process, one of the key components of entrepreneurship and the main success factors are among the entrepreneurs. Despite the vital role of identifying opportunities in the entrepreneurship literature on how much material and why the process of entry to identify opportunities not found.

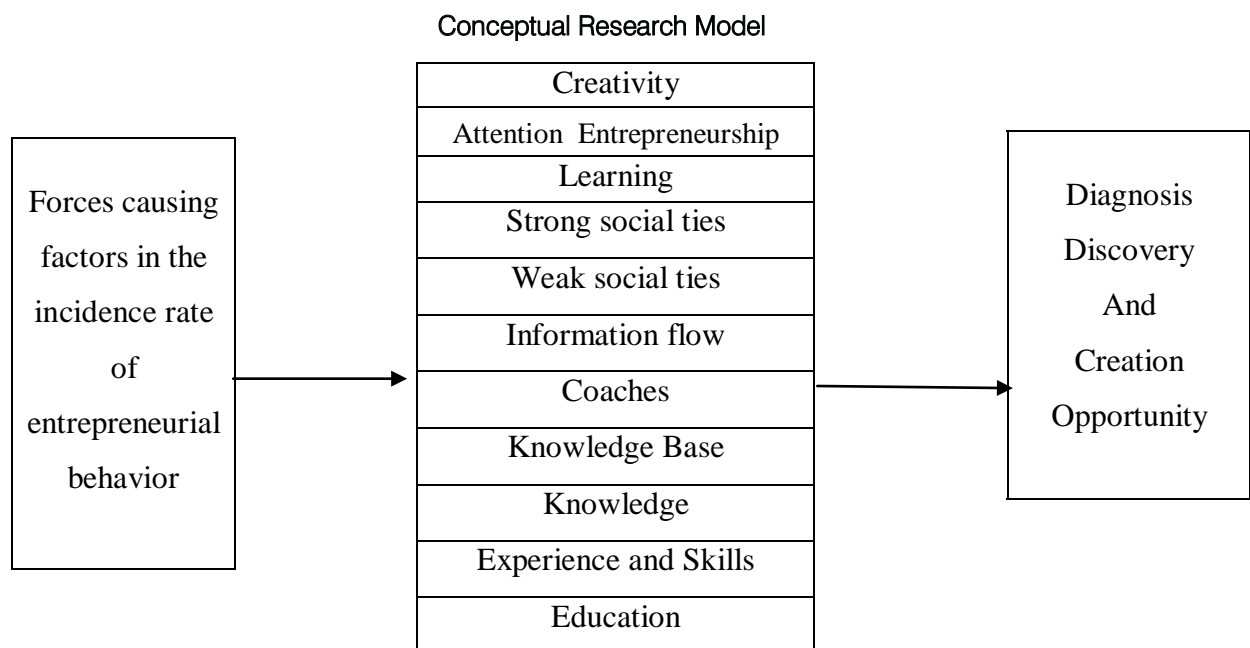
Initial studies to identify opportunities that can be received as a result of any accident is not. The opportunities can be identified and the search result is analyzed and the detection result. But even entrepreneurs who only recognize the opportunities and search and systematic analysis to identify the opportunities do not, have certain characteristics that it is referred to as entrepreneurial alertness. With factors such as social networks, more attention to information outside the organization, familiarity with the problems and needs of customers and also familiar with the market mechanism in a particular activity, including the factors leading to the awareness of entrepreneurship are. In a dynamic economy, ideas, products and services are constantly changing. Congratulations on this work and that the model for coping and adaptation, brings new. Result of small and medium industries development and entrepreneurship in communities because the vast share of GDP, creating employment, women's participation in economic activity, employment and facilitate their economic problems have, have a particular significance.

Statistics show that entrepreneurship is the fact that failed to recognize a profitable opportunity in the startup phase of their business have been failed by identifying further opportunities to grow their business and make their business life cycle soon reached the decline stage.

What ever the mind of entrepreneurship researchers is engaged, this is why some people are

working and some not Blessed? Why some small businesses to mid-sized companies are converted and some not? Why some companies become medium to large companies and some are not? Do entrepreneurs and managers have unique features that others have it from. If yes, what is this feature? Entrepreneurs and not necessarily all have this feature? Non-working and whether there are Blessed to have such features, but attempts to identify and exploit the opportunities they had not?

The role of entrepreneurs, to alert them about the opportunities that have remained unknown so far is on. Identify opportunities to understand the possibility of creating a completely new business or create the possibility of substantial improvement in a business location is available, in both cases the potential profitability of a new lead. Identified two types of opportunities can be diagnosed. The first type, with external factors is stimulated. In identifying these opportunities, decided to establish business opportunities before has been identified. Such entrepreneurs in search of opportunity and they are filtering. The second type of opportunity to identify the internal factors is stimulation. These entrepreneurs are the problems to come for it or e solution has been presented to satisfy the need that has not come and eat only after the decision to establish a business is. But the difference is the opportunity to identify what is causing this? Entrepreneurs how opportunities are identified? Remit or whether they are diagnosed? Therefore, we should analyze when people are in this process and how opportunities are identified? How opportunities are discovered? How opportunities are created? Who and what characteristics identify opportunities, to discover and create? Detection process, discovering, creating, evaluating and exploiting opportunities is how?



### III. LITERATURE REVIEW

The literature review, the cash from existing knowledge on the subject research. Literature review, if properly done better to express the problem and assist research findings to previous research linking. Literature review will meet the following purposes:

- A) definition and reservation issue
- B) placing research findings in the context of previous research
- C) avoid duplication
- D) Select methods and tools to measure more accurately

#### a) *The role of social and communication networks*

The role of social relations and networks to identify opportunities in one of the problems that long have been considered before. What kind of social communication to identify opportunities and leads are being identified opportunities of social communication in comparison with the opportunities identified by entrepreneurs with their advantages and what are the differences in process research often has been studied. In most classic role of written communication and familiarity of the poor around the emphasis is to identify opportunities. The role of the weak links that bridge enables entrepreneurs to access information resources that necessarily through strong relationships and close acquaintances are not available. Most people everything about networks that are closely associated with them (such as close friends and acquaintances), but the networks know that they have poor communication (Acquaintances away) often have no place in their internal cycles. While many acquaintances far more that are due, can be a unique resource information. Another reason that social networks should pay more attention has weak links showed that the different ways to personalize the information in a group of his close friends and acquaintances has access (however, one group will pass the information be). But a lot of ways to access information in a social group with no individual associated with the weak and therefore requires more attention. Closely associated with poor social networks with the other person has an advantage of familiarity with the various theories about a subject.

Several investigations that went on to mention some of them will, have shown that knowledge about a field, a factor in identifying opportunities to sue. An entrepreneurial environment, the market should have a good view, forces of the market for servers and identify critical factors and influences on these components know each other. Previous knowledge makes creating a collection of knowledge is the path towards discovering entrepreneurial opportunities opens.

Tuesday, after earlier in the process of knowledge discovery opportunities are important roles:

- A) previous knowledge about the market

- B) previous knowledge on how to meet market
- C) knowledge about the problems of previous customers

Although awareness of entrepreneurship and networks can be effective access to information entrepreneurs, or our customers aware of a problem or a need not satisfy them alone is not sufficient for entrepreneurship. Creativity is one of the necessary elements to identify and use opportunities to sue. In one of the studies in this field, 99% of entrepreneurs who respond with "creative being an important factor for identifying business opportunities to sue," e have agreed.

### IV. OBJECTIVES AND HYPOTHESIS

#### a) *Goals*

- A- determine the impact of unofficial industrial networks (as a source of information) on identifying opportunities
- B- Determination of impact rely on identifying opportunities to coach
- C- determine the impact of professional and community participation in identifying information on opportunities
- D- Determination of impact rely on family members and close friends the opportunity to identify
- E- Determination of efficacy of individual entrepreneurs on the information on the impact of community resources to identify opportunities.
- And - determine the pattern of mental patients on the social impact of information resources on opportunities identified.
- F- factor determining the impact of entrepreneurship and information processing on the data sources to identify opportunities.

#### b) *Hypothesis*

Hypothesis 1 : The more informal social networks of entrepreneurs in the industry as a source of information used to higher levels, they are more likely to identify opportunities for business to work.

Hypothesis 2 : entrepreneurs to higher levels in the industry as a coach or field help it had relied, the more likely opportunities for their business will be discovered.

Hypothesis 3 : The entrepreneurs rely on family and close friends to identify business opportunities for their positive impact will be.

Hypothesis 4 : The more people in the professional community (conferences, seminars, ...) to participate, they are more likely to get opportunities and recognize their work.

Hypothesis 5 : The Impact of Information on the opportunity to identify entrepreneurs with personal efficacy than the entrepreneurs are the personal efficacy are lacking; different.

Hypothesis 6 : The Impact of Information on the diagnosis of mental model of opportunity for entrepreneurs who are more regular than entrepreneurs who lack a regular pattern are subjective; different.

Hypothesis 7 : The Impact of Information on the opportunity to recognize entrepreneurs who have entrepreneurial coefficients are higher than that entrepreneurs are no coefficients above entrepreneurship; different.

## V. ANALYSIS OF RESEARCH HYPOTHESIS

Main theory research: information and communication and information processing power of recognition, opportunity discovery and creation has a positive effect. .

Between community resources information and identify opportunities correlation does not exist.  $H_0 : \rho = 0$

Between community resources information and identify opportunities correlation exists.  $H_1 : \rho \neq 0$

Community Resources Information		Independent variable Dependent variable
0.000	Significant level	Identify opportunities Y
0.408	Correlation	

### a) Prove the main theory research

Considering that significant levels obtained (0.000) smaller than the error rate (0.05) are therefore assume  $H_0$  is rejected, and certainly with 95 percent stated that social resources, identify opportunities, information has a positive effect.

### b) Prove the first sub-hypothesis

Any industrial entrepreneurs from informal networks as a source of information used to higher levels, they are more likely to identify opportunities for business to work.  $H_0 : \rho = 0$

Reliance on informal networks between industry and identify opportunities no correlation

Reliance on informal networks between industry and identify opportunities correlation does not exist.

$H_1 : \rho \neq 0$

Reliance on informal networks of industrial		Independent variable Dependent variable
0.000	Significant level	Identify opportunities Y
0.689	Correlation	

Considering that significant levels obtained (0.000) smaller than the error rate (0.05) are therefore assume  $H_0$  is rejected and safely as possible 95 percent stated that informal networks of industrial entrepreneurs as a source of information to higher levels to use , likely opportunities to identify their business.

### c) Prove the second sub-hypothesis

Entrepreneurs to a greater level trainer and consultant in the field of industry or help it had relied, the more likely opportunities for business will discover their work.

Reliance between the coach and the opportunity to recognize there is no correlation  $H_0 : \rho = 0$

Reliance between the coach and the opportunity to recognize there is solidarity.  $H_1 : \rho \neq 0$

Relying on coaches		Independent variable Dependent variable
0.000	Significant level	Identify opportunities Y
0.649	Correlation	

Considering that significant levels obtained (0.000) smaller than the error rate (0.05) are therefore assume  $H_0$  is rejected and can be 95 percent of entrepreneurs said that much more of a coach or consultant in the field of industry or rely on help it have, the more likely opportunities for business will discover their work.

### d) Prove the third sub-hypothesis

Rate of entrepreneurs to rely on family and close friends the opportunity to identify their business will have a positive impact.

Between relying on family and close friends and there is no correlation detection opportunities.  $H_0 : \rho = 0$

Between relying on family and close friends, and identify opportunities correlation exists.  $H_1 : \rho \neq 0$

Relying on family and close friends		Independent variable Dependent variable
0.663	Significant level	Identify opportunities Y
- 0.047	Correlation	

Hypothesis for the Pearson correlation test was used and because the level achieved significantly (0.663) larger than the error rate (0.05) are therefore assume  $H_0$  is accepted and the amount equivalent of



correlation coefficient (- 0.047) so you can confidently 95 percent said the amount of entrepreneurs to rely on family and close friends the opportunity to recognize their business is ineffective.

*e) Prove the fourth sub-hypothesis*

The more people in the professional community (conferences, seminars, ...) to participate, they are more likely to get opportunities and recognize their work.

Between participation in professional communities and identify opportunities there is no correlation.  $H_0 : \rho = 0$

Between participation in professional communities and identify opportunities correlation exists.  $H_1 : \rho \neq 0$

Participation in professional communities		Independent variable Dependent variable
0.000	Significant level	Identify opportunities Y
0.758	Correlation	

R2	Error rate	Significant level	T-test	B	Dependent variable	Independent variable
0.68	0.05	0.015	2.480	.214	Y	X
	0.05	0.000	7.681	.663	Y	X5
0.52	0.05	0.000	9.759	0.721	X5	X

Significant given that in all cases smaller than the test error rate (0.05) can be claimed is therefore a positive relationship between these variables are also considering following calculations personal efficacy variable (X5) on the relationship between the independent variable of social resources information (X) and the opportunity to recognize dependent variable (Y), is negative and H0 is rejected.

$$X Y - (X X5) * (X5 Y) = (0.22) - (0.721) * (0.66) = - 0.25$$

R2	Error rate	Significant level	T-test	B	Dependent variable	Independent variable
0.52	0.05	0.000	4.972	0.491	Y	X
	0.05	0.003	3.038	0.300	Y	X6
0.44	0.05	0.000	8.397	0.667	X6	X

Considering that a significant level of testing in all cases smaller than the error rate (0.05) can be claimed is therefore a positive relationship between

Considering that significant levels obtained (0.000) smaller than the error rate (0.05) are therefore assume H0 is rejected and can be confidently stated that 95 percent of what most people in the professional community (conferences, seminars and ... ) to participate, the more likely opportunities for businesses to recognize their work.

*f) Fifth sub-hypothesis proved*

Impacts of information on community resources for entrepreneurs who have the opportunity to identify personal efficacy are more than entrepreneurs who lack personal efficacy.

Impact of information on community resources for entrepreneurs who have the opportunity to identify personal efficacy, no efficacy with which entrepreneurs are equal.  $H_0 : \rho = 0$

Impact of information on community resources for entrepreneurs who have the opportunity to identify personal efficacy, no efficacy with which entrepreneurs are not equal.  $H_1 : \rho \neq 0$

*g) Six sub-hypotheses prove*

Impact of information on community resources for entrepreneurs identify opportunities that are more structured mental model of entrepreneurs that is more structured mental patterns are lacking.  $H_0 : \rho = 0$

Impact of information on community resources for entrepreneurs identify opportunities that are more structured mental model, and entrepreneurs who lack structured mental model are not equal.  $H_1 : \rho \neq 0$

these variables exists. And also vary according to the calculations under the mental model (X6) on the relationship between the independent variable of social

resources information (X) and the opportunity to recognize dependent variable (Y), has a positive effect and assume H0 is rejected.

$$X Y - (X X6) * (X6 Y) = (0.491) - (0.667) * (0.30) = 0.29$$

h) *Prove the hypothesis minor seventh*

Impact of information on community resources for entrepreneurs identify opportunities that have a higher coefficient of entrepreneurship is that entrepreneurs are no more coefficients are high entrepreneurship.

Impact of information on community resources for entrepreneurs identify opportunities that are a factor with higher entrepreneurial entrepreneurs entrepreneurship are high that no coefficient is equal.

$$H_0 : \rho = 0$$

Impact of information on community resources for entrepreneurs identify opportunities that have a higher coefficient of entrepreneurship that entrepreneurs are no coefficients with high entrepreneurial are not equal.  $H_1 : \rho \neq 0$

R2	Error rate	Significant level	T-test	B	Dependent variable	Independent variable
0.56	0.05	0.000	8.475	0.618	Y	X
	0.05	0.000	4.133	0.302	Y	X7
0.059	0.05	0.000	2.343	0.242	X7	X

Considering that a significant level of testing in all cases smaller than the error rate (0.05) therefore can be claimed between these variables are positively and also varies according to the following calculation coefficient Entrepreneurship (X7) on the relationship between the independent variable community resources information (X) and the opportunity to recognize dependent variable (Y), has a positive effect and assume H0 is rejected.

$$X Y - (X X7) * (X7 Y) = (0.618) - (0.242) * (0.302) = 0.54$$

## VI. RESEARCH RESULTS

### I Results

Informal networking opportunities by entrepreneurs to identify the industrial influence. Previous research on the effectiveness of social networks to identify opportunities shown. More research on this social network as a whole, but further research was focused in 2006 was revealed, the two networks to social networks and informal network of industry friends and family are divided. The results indicate a positive impact on industrial informal networks is the opportunity to recognize. The results also show that between detection rate and the opportunity to attend informal networks of industrial relations are positive and significant. Higher level of specialist knowledge in industrial informal networks than the general social networks increases the impact of these networks is the opportunity to recognize.

### II Results

Trainers and consultants on the impact of entrepreneurs are diagnosed by chance. With coaches can draw attention to the importance of entrepreneurs emerging trends and changes (such as changes in

technology, markets, government policies, ...) and through the transfer of frames to interpret complex information to entrepreneurs in developing a cognitive framework for identifying opportunities to help. In other words, educators, entrepreneurs towards new business opportunities are smart and recognize them for their entrepreneurial facilitation.

### III Results

Rate of entrepreneurs to rely on family and close friends the opportunity to recognize their work will not affect business. According to previous research as well as relying on family networks and close friends to learn about the opportunity to identify opportunities is ineffective. In fact, although close friends and family networks play an important role in various aspects of entrepreneurial process are (eg, emotional and financial support for the entrepreneur to take the decision to begin the process, is important), but such people often lack the knowledge and experience of informal networks of industrial are less than informal networks of industrial entrepreneurs in preparing the information will help identify opportunities.

### IV Results

Participation in professional gatherings (conferences, seminars, ...) on the impact of entrepreneurs is diagnosed by chance. path analysis results also indicate that participation in professional communities of personal efficacy, mental model of entrepreneurial individuals and also affects the coefficient. Results have suggested that one of the mechanisms through which social resources, information, professional societies, particularly, facilitate the recognition opportunities, they reinforce efficacy, encourage growth and develop good mental models

have been developed (well grown) and increasing the coefficient of entrepreneurship.

## V Results

Impacts of information on community resources for entrepreneurs who have the opportunity to identify personal efficacy are more than entrepreneurs who lack personal efficacy. Based on research findings, personal efficacy, positive and significant correlation (correlation coefficient 0.817) with detection has the opportunity. According to regression test results, the variable information on the relationship between social resources and the opportunity to identify effective, but the share has a negative impact.

Findings of this study shows, those with high efficacy less information from others, such as trainers and advisers, informal networks come from industrial and professional associations, have relied.

## VI Results

Impact of information on community resources to identify opportunities that entrepreneurs have a more regular pattern than intellectual entrepreneurs who lack mental patterns are regular. The results show that the pattern of positive and meaningful relationship mentally (with correlation coefficient 0.628) with detection has the opportunity.

## VII Results

Impact of information on community resources for entrepreneurs identify opportunities that have a higher coefficient of entrepreneurship is that entrepreneurs are no more coefficients are high entrepreneurship.

Identify opportunities and review of literature shows that research conducted since the coefficient of correlation between entrepreneurship and opportunity recognition, and the effect on the entrepreneurial process factor can be, has not been studied. In fact, in the present study, the first time, the impact factor of social entrepreneurship on the relationship between sources of information and identify opportunities have been examined. The results show the positive impact of this variable on the relationship between community resources and identify information is opportunity.

Moreover, the results show that the coefficient of entrepreneurial opportunity recognition as a significant positive correlation (correlation coefficient 0.451) is.

## VII. RESEARCHER OFFERS

### a) suggestions for future research

Effect of ICT on firms and identify opportunities in big businesses

Relationship between diagnosis and the opportunity to explore and create business startup rates in countries

Relationship between ICT resources and entrepreneurial intention

Relationship between previous knowledge and identify opportunities

Process review the differences between entrepreneurs identify opportunities

Comparison between the opportunity to identify emerging and established entrepreneurs

Relationship between detection time and other business-related activities, including export and marketing

Causes closure of small and medium enterprises Industrial Estates closed; and the role of Susie the opportunity

Relationship between failure and failure to identify early opportunities in enterprises closed

Relationship consciousness by identifying opportunities for entrepreneurship Entrepreneurship

### b) suggestions for policy makers

- Creation of industrial clusters: creating industrial clusters is one of the best solutions that can call and interactions between natural and legal persons in terms of quality and quantity improve. Cluster formation among small and medium enterprises, in addition to other benefits that occurs, the flow of information between these agencies will facilitate. Industrial informal networks are strengthened. Presence of professionals in industrial clusters can help beginners to people, allowing for the needs assessment study and training courses, seminars and workshops related to their problems is also provided in this way.
- Set up counseling centers and advisory services with industry experts who can present the role of trainer and consultant in the areas of information, analysis and use this information for novice entrepreneurs have.
- Get serious and recognition of trade unions and associations
- Our efforts to host international exhibitions of the latest achievements in particular exhibits
- Policy in order to facilitate small and medium enterprises companies in exhibitions, international fairs, particularly internal and external.
- Industries related to the preparation of databases and updating them regularly.
- If we can measure the entrepreneurial alertness in the years before the young people choose their future career, they provide measured questionnaires or other methods, mechanisms can be created to alert people that a higher ratio of Entrepreneurship others have made familiar with entrepreneurship, skills taught to them, and they led towards entrepreneurship.

- c) *students and faculty and other researchers*
- Used as a training aid in teaching students
  - Use the Entrepreneurship Development Consulting
  - Use for advice on creating new business
  - Reflection on the concept of open opportunity and opportunity Biology
  - Used in meetings and conferences
  - Use basic theoretical literature on research next

- d) *policy makers and executives responsible for national economic and social development sectors*
- Practical information to improve mechanisms for the emergence of community-level opportunities
  - Improved mechanisms to increase opportunities for entrepreneurs and more support and broader entrepreneurs

- e) *various industries*

- For more on networking and communication with customers. It needs to ensure that attention to launch respected managers, develop and strengthen communication systems have. Including activities that could promote it to provide the following can be noted:

Design websites dedicated to obtaining the potential and actual customer reviews Customer Relationship establish phone lines and communication skills training to employees who are in direct contact with customers.

- Trying to communicate more with networking businesses, and former late. Late former businesses and suppliers typically raw materials, distribution channels, or goods that are the ultimate consumers, all social resources among the data are considered. Point that it should be noted here is that often certain units or individuals in connection with any liability companies are responsible for these groups, officials of these units to be justified in relation to the importance of networking and improve communication with suppliers, and distribution channels. .. The key point in communication is useful for information. Therefore, managers must respect the division of tasks and delegation to the right authorities to the Company its manufacturing networking with community resources and information to lead in this regard closely with employees and parts of the company most associated with the external environment, like Sales and marketing employees have.
- Empowering human resources in order to improve the infrastructure necessary for interactions in the present century.
- Increased presence in scientific conferences and seminars related field activities, especially meetings in which new developments or specific industries and offer is being discussed.
- Increased presence in courses and workshops related to increased activity and participation in

specialized exhibitions of national and international activities related areas,

- Increased presence in exhibitions held carefully activities that have direct contact with the area.
- Membership and active participation in associations, unions and related activity areas.
- Membership in professional groups, academic and scientific associations related to membership in professional associations and international communities
- Formed between agent networks, especially large firms that take advantage of larger firms experience for novice entrepreneurs provides the possibility of communicating with more experienced guild who can coach and consultant roles in the areas of business have, provides.

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# A Comparative Study of Consumer Attitudes in Iran and Dubai towards Marketing Mix Elements For Small Home Appliances

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**Abstract** - This study examines the attitude of consumers of small home appliance products in Iran and Dubai towards four elements of the marketing mix, Product, Price, Place and Promotion. Empirical data were gathered from 393 respondents in Iran and Dubai. Statistical analysis conducted using SPSS 18 software to test the research hypotheses about the similarity of each element's importance in the two studied countries. The findings reveal great insights about customers' preferences in each country. This novel study is of particular interest for the academic researches and marketing practitioners seeking firsthand information about customer attitudes both in Iranian and Dubai markets.

**Keywords** : *Marketing Mix Elements, Consumer attitudes, Small Home Appliances, Iran, Dubai.*

**GJMBR-B Classification**: *FOR Code: JEL Code: JEL Code: 150505, 150501 JEL Code: P51, P52, D11*



*Strictly as per the compliance and regulations of:*



# “A Comparative Study of Consumer Attitudes in Iran and Dubai towards Marketing Mix Elements For Small Home Appliances”

Dr. Mohammad Hussein Askariazad<sup>a</sup> & Maria Yousefian<sup>σ</sup>

**Abstract** - This study examines the attitude of consumers of small home appliance products in Iran and Dubai towards four elements of the marketing mix, Product, Price, Place and Promotion. Empirical data were gathered from 393 respondents in Iran and Dubai. Statistical analysis conducted using SPSS 18 software to test the research hypotheses about the similarity of each element's importance in the two studied countries. The findings reveal great insights about customers' preferences in each country. This novel study is of particular interest for the academic researches and marketing practitioners seeking firsthand information about customer attitudes both in Iranian and Dubai markets.

**Keywords** : *Marketing Mix Elements, Consumer attitudes, Small Home Appliances, Iran, Dubai.*

## 1. INTRODUCTION

The world is becoming more global and companies are trying to use the opportunities of international markets for their benefit. As global wealth is increasing companies face significant demand growth from international markets. Over the last two decades business has become more globalized, now 98% of the fortunes 500 have global operations (Cateora et al., 2009). Thus, the concept of international marketing is now of greater interest to both academic researchers and marketing practitioners. International marketing is a performance of business activities designed to plan, price, promote, and direct the flow of a company's goods and services to consumers or users in more than one nation for a profit (Cateora et al., 2009).

Companies decide to enter foreign markets will examine various entry mode strategies, exporting, licensing, joint ventures or direct investment, and chose and adapt the one that best suits their long-term corporate strategies. However, many scholars mention that exporting is the most appropriate entry mode strategy for small and medium size (SMEs) firms (Hultman, Robson, & Katsikeas, 2009; Leonidou et al., 2007; Katsikeas et al., 2007). According to Johansson

(2009), exporting is the standard exchange of product for money; it is less risky and more straightforward, since it is an expansion into a new market with an existing line of final products.

Dubai market is very intimidating for most of Iranian based companies, as it comprises one of the largest consumer markets in the world today with Muslim consumers who have considerable purchasing power around the region. In recent years the government of United Arab Emirates has decided to diversify their economy, thus they open doors to internationalization and being global. This region also has close neighbors with deep pocket. The great advantage of Dubai seems to be its location that is highly proper for arranging re-exports activities to neighborhood countries” (Johansson, 2009).

Although exporting seems to be a simple straightforward way of expansion into Dubai market, there exist great differences in customer attitudes and preferences from domestic market (Iran) to that of the exporting country (Dubai). This makes decision making about designing an appropriate marketing mix suitable for the Dubai market more complex. There is a lack of scientific research in this area as notice by researches. This study, thus explores to find out differences among customer attitudes of the two countries toward marketing mix elements, Product, Price, Place, and Promotion focusing on small home appliance product category. Although this specific product category was chosen due to the researches expertise and knowledge working in this field the novel findings of this study are highly applicable for other products categories.

The rest of this paper organized as follows. In Section 2 an extensive review of literature is presented to explore recent methodologies and techniques used in this related area. Selected methodology for analyzing the data gathered is presented in Section 3. The result of the survey is thoroughly defined and the detailed statistical analysis is explained in Section 4. Finally Section 5 discusses the research findings and recommend interesting topics for future research in this domain.

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## II. LITERATURE REVIEW

The extensive review of the literature in the area of marketing mix design, export strategies, and international consumer behavior leads to a better understanding of the current concerns regarding the

problem issue of this study, exploring consumer attitudes in different countries towards marketing mix elements. The recent related studies as noticed by the researchers are summarized in Table 1.

Table 1 : Recent Studies

Study	Methodology	Industry	Main results
Colton et al., 2010	E		Brand strength and supplier relations are mediator between foreign market and firm performance.
Griffith, 2010	T	Literature review	Consider that designing a global marketing strategy to operate in international markets is fundamental for succeeding overseas.
Brouthers et al., 2009	E	Small size exporting firms from Greece and Caribbean countries	Emphasis is on international sale that results in superior export performance and strong distribution network for small firms.
Lages et al., 2009	E	Multi-industry firms; exclude service firms	Findings reveal strong link between the capabilities that influence product strategy and export performance, moreover the role of product quality in international marketing success being highlighted in this study.
Calantone et al., 2006	E	Large exporting firm in US, Korea, Japan such as Daewoo, Samsung, Hyundai	Product adaptation strategy is positively influencing the export performance.
Katsikea et al., 2005	T	Small and Medium-sized U.K. exporting firms	Examine the influencing factor for arranging the firms' adaptation according to market diversification or market concentration. Export manager behavior, export sales control, export sale satisfaction were identified as the main factors.
O'Cass and Julian, 2003	E	Agriculture, mining, metal-working, Electronic, services chemical,	Environmental characteristics have influence on both export and marketing mix strategy adaptation. Besides, adaptation or standardization of marketing mix has no impact on marketing performance.
Cadogan et al., 2002	T	Exporting firms randomly selected	Export experience and capability coordination positively related to export market oriented activities which itself positively associated with aspect of export performance.
Leonidou et al., 2002	E	Food, beverages, And clothing to electronics, semiconductors, and Machine tools	Identify the determinants of the firm's export success and have found a great variety of antecedents but not significant relationships among them.
Albaum and Tse, 2001	E	Exporting firms in Hong Kong.	Marketing mix component are the main influencer on firm export performance success.

(E: empirical, T: theoretical)

This study is based on the premise that the main aspect of marketing strategy is marketing mix issue and its 4ps elements, Product, Price, Place and Promotion. Through the use of the marketing mix, researchers have been able to realize how changes in

marketing mix variables influence the firm's ability to increase overall performance (Katsikeas et al., 2006; Lages et al., 2008). Thus, the review of the literature is classified based on the related studies for each element of the marketing mix as follows.

As Griffith (2010) stated product strategy is the adaptation of the product or service of the international firm according to the customer tastes, product quality or safety standards. The differentiation advantage of a firm compare to the other competitors in new market may result from better quality and reliability, more durability, better service, have superior design or better performance (Terpstra and Sarathy, 2000). Many scholars found positive relation between product qualities and export performance (Leonidou et al., 2002; Lages and Lages 2005). Another factor, which is important in the product category offered to customer, is pre/post service. Many scholars found positive relation between well-arranged product service and performance enhancement in international market (Czinkota and Johnston, 1981; Lalonde and Czinkota, 1981; Marr, 1987; Piercy, 1981; Leonidou et al., 2002). Leonidou et al., (2002) claimed that there is a positive relation between the brand of the product with export performance and profit.

According to Theodosiou and Katsikeas (2001) pricing strategy is the adaptation or standardization of international pricing for firm product or service, which is highly influenced by similarity between home and host countries in terms of customer characteristics, legal environment, economic conditions and stage of the product life cycle. Griffith (2010) stated that the firms can response strictly toward changing market conditions, competitive situations, and environmental forces, by choosing an appropriate pricing strategy, which is totally under control of the organization. Although Bilkey and Warren (1985) found that high price results in high profit for the firm, Cavusgil and Zou (1994) found no specific relation between these two issues.

O' cass and Julian (2003) investigated that strong and well arranged distribution channel is an essential factor for participating in foreign market and being successful in new competitive market. According to Griffith (2010) structuring and governing the global distribution element of the firm increase the firm ability to compete in the market. Brady and Bearden (1979) claimed that within direct channels firms could provide a high level of control.

The last but not the least element of marketing mix is promotion. Griffith (2010) dedicated those differences in fundamental elements increase the importance and necessity of firm's promotional adaptation in order to meet the needs and requirements of the market segmentation. It is necessary for the firms to identify their main promotional elements according to new market environment characteristics and to try to go through adaptation or standardization. Most of the marketers believe that the advertising is the main elements of promotion strategy but its relation with firm performance face contradictions. However, Bilkey and

Warren (1982) found negative relation, Kirpalani and Macintosh (1980); Szymanski et al., (1993) found positive relations between advertising and firm performance. According to Cavusgil & Zou, (1994) this contradiction roots in the time-bound of advertising. In the short time on the account of high cost and low feedback the relation is negative while in the long term the noticeable pay-off will be recognized.

### III. METHODOLOGY

As this research tries to get insights from consumer's Attitudes towards marketing mix elements for small home appliances to make comparison between the preferences of both Iranian and Dubai's costumer, four research hypotheses are formulized as follows:

H1: The importance of product element of marketing mix in Iran is equal to that of Dubai.

H2: The importance of price element of marketing mix in Iran is equal to that of Dubai.

H3: The importance of place element of marketing mix in Iran is equal to that of Dubai.

H4: The importance of promotion element of marketing mix in Iran is equal to that of Dubai.

To test these hypotheses empirical data from real-life customers of small home appliances was needed. A questionnaire is designed consisting of two parts. The first part contains general questions about the respondent's age, gender and educational degree plus some specific questions about how these customers usually collect reliable data about these products where they buy these kinds of products and what brand they prefer in this product category. The second part aims to gain insights concerning consumer attitudes towards four elements of the marketing mix, Product, Price, Place, and Promotion in buying small home appliances. For each element three to five questions concerning factors that affect the element were also included in this part of the questionnaire. The respondents were asked to use a five rating Likert scales representing their opinion for each element from "strongly unimportant = 1" to "strongly important = 5". The sample population of this study contains consumers of small home appliances both in Iran and Dubai. Convenience sampling method is used to get as much responses as possible in both countries. The data collection started in January 2011 and lasts for two months. The questionnaires were distributed in shopping malls of both Tehran and Dubai. The researchers traveled to Dubai several times to dispatch the questionnaire but the attempts were not as successful as for that of Iranian market. Total number of 310 responses from Iran and 83 responses from Dubai were gathered.



## IV. DATA ANALYSIS AND RESULTS

The reliability or the internal consistency of a research can be found by examining Cronbach's Alpha which must be more than 0.70 to be highly acceptable (Hair et al., 2007). The Cronbach's Alpha achieved for 310 questionnaires in Iran was equal to .808 that is highly acceptable while for 83 questionnaires in Dubai were 0.675, which is fairly acceptable for the purpose of this research. The demographic profile of respondents in two countries is summarized in Table 2. In both countries the majority of the respondents were between 20 to 35 years old with Bachelor's degrees.

**Table 2 :** Demographic Characteristics - Iran and Dubai

Demographic characteristics % Response Iran (n=310)		
Gender	Male	53.2
	Female	
Age	>20	2.6
	20-35	51
	35-50	33.5
	<50	12.9
Education	Diploma	33.2
	Bachelor	50.3
	Master	12.6
	PHD	3.9
Demographic characteristics % Response Dubai (n=83)		
Gender	Male	49.4
	Female	
Age	>20	12
	20-35	51.8
	35-50	34.9
	<50	1.2
Education	Diploma	34.9
	Bachelor	41
	Master	18.1
	PHD	6

In Iran 29% of the respondents, usually gather information about this product category from friends' recommendation while 41.90% from salespersons, 21.3% from advertising. Almost 32.6% of the customers were influenced by the reference group to buy these products. The preferred brand for 25.2% of the respondents was Molinexx in this product category. In Dubai however, 39.8% were chosen advertising as reliable source for gathering information to purchase small home appliance product and almost 37.3% of the customers were influenced by salesperson

recommendation to buy such products. As the result of survey shows 50.6 % of the respondents usually buy their small kitchen items from shopping malls. The preferred brand for 31.3% of them was Black & Decker.

### a) Marketing Mix elements Importance

The importance of each elements of the marketing mix Calculated from each item's means using SPSS 18 software. The final means divided by five (five-point scale) and then multiplied by 100 to gain the percentage for each element.

Findings reveal that in Iran costumers mainly value the Product element at the most (85.10%). The second important element is Price (79.46%), which is close to the Place (74.77%) that has less effect. The last element is surprisingly Promotion (69.74%). Results also show that in Dubai product element (85.15%) has the most important effect on purchasing decision. The runner-up is the Promotion (78.98%), which is close to the Price (77.18%) with less effect. The Place (74.22%) has the least influence on the purchasing decision. The comparison of overall ranking for each marketing mix elements with its associated factors is shown in Table 3.

**Table 3 :** Marketing Mix Element's Importance Comparison between Iran and Dubai

Iran	Dubai
<b>1. Product</b>	<b>1. Product</b>
Quality	Quality
Operability	Service
Service	Operability
Brand Reputation	Brand Reputation
Package	Package
<b>2. Price</b>	<b>2. Promotion</b>
Quality - Price equity	Discount
Brand - Price Equity	Sale Person Recommendation
Payment Methods	Advertising
	Internet advertising
<b>3. Place</b>	<b>3. Price</b>
Convenient Channel stores	Quality - Price equity
Convenient Location	Brand - Price Equity
On line sale	Payment Methods
<b>4. Promotion</b>	<b>4. Place</b>
Discount	Convenient Channel stores
Advertising	Convenient Location
Sale Person Recommendation	
Internet advertising	

### b) Hypothesis testing

Using SPSS 18.0, the independent sample tests for comparing the means of two groups (that of Iran with that of Dubai) was computed. At first the significant in Levene's Test of equality variances is checked. For (Sig>.05) the assumption of equal variances are

accepted. Next the significant in the t-test for equality of mean is considered. For the (Sig.>.05) the means are equal otherwise the null hypothesis will be rejected and the mean of both group Considered as unequal. The results are summarized in Table 4. For example for

the equality test of the importance of product element for Iran and Dubai as shown in Table 4, the equal variances assumed (sig. 142>.05) and means are equal as Sig. (2-tailed) is .961>.05.

Table 4 : Independent sample Test

4Ps	L even`s Test for E quality of variances		T - Test for equality of Means			
	F	Sig	t	df	Sig. (2-tailed)	Mean difference
Equal Variances	2.167	.142	-.049	391	.961	-.00299
Unequal Variance (Product)			-.054	150.055	.957	-.00299
Equal Variances	.588	.444	1.561	391	.119	.11368
Unequal Variance (Price)			1.659	141.016	.099	.11368
Equal Variances	1.472	.226	- 5.469	391	.000	-.46170
Unequal Variance (Promotion)			-5.913	144.902	.000	-.46170
Equal Variances	5.619	.018	- 7.639	391	.000	-.59864
Unequal Variance (Place)			-8.777	160.871	.000	-.59864

Table 5 shows the summary of the hypothesis testing.

Table 5 : Hypothesis Test Summary

Hypothesis	Result
H 1: The importance of product element of marketing mix in Iran is equal to that of Dubai.	Accepted
H 2: The importance of price element of marketing mix in Iran is equal to that of Dubai.	Accepted
H 3: The importance of place element of marketing mix in Iran is equal to that of Dubai.	Rejected
H 4: The importance of promotion element of marketing mix in Iran is equal to that of Dubai.	Rejected

## V. DISCUSSION AND CONCLUSION

The findings of this study reveal great insights about customer's preferences in buying small home appliances in the two studied countries of Iran and Dubai. In general although Iranian people are more influenced by friends' recommendation and reference groups, customers in Dubai rely more on advertising and personal selling skills. Attitudes toward E-shopping seem to have no direct and significant impact on the purchase intention of products in this business field. Most of the customers in Iran and Dubai would like to see, touch and physically observe the products before they buy it. The findings also shows that mostly customers in Dubai prefer to buy small home appliance products from exclusive stores in shopping malls or Carrefour thus it is suggested for the exporting companies to arrange their distribution channels via these two centers either within direct or indirect exporting.

Marketing mix elements' importance in Iran differs slightly from that of Dubai. In addition the results reveal that the importance of product and price can be considered to be equal for these two countries while for the place and promotion this is not the case. Concerning factors of each element it is found that, Availability of store as one of the place element is mentioned to be the most essential stimuli in buying behavior for both Iranian and Dubai customers. In both countries the main factor concerning the promotion element of the marketing mix is Discounts. Also among the product factors for both countries the main item is product quality. This confirms the previous scholar findings (eg. O'cass and Julian (2003); Leonidou et al., 2002; Lages and lages 2005) that product quality can have influence on export performance and have positive effect on company success in international market. Considering price factors in Iran and Dubai, quality-price equity is the most important factors. This

finding reinforces Theodosiou and Katsikeas (2001) and Leonidou, Katsikeas, and Samiee (2002) previous research findings.

The main limitation faced by researchers in this study was the difficulty in accessing to Dubai customers, which leads to the fewer responses from that region. Furthermore, this research provides a comparison of customer attitudes and Preferences concerning four elements of the marketing mix for small home appliance products. In the future, it would be interesting to conduct similar studies for different product categories. Also more comprehensive researches aiming at exploring appropriate strategies concerning each element of the marketing mix is highly recommended.

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# Investigating the Causal Relationship between Education and Economic Growth in Zimbabwe

By Tichaona Zivengwa

*University of Zimbabwe*

**Abstract** - This paper specifically investigates the causality between education and economic growth in Zimbabwe during the period 1980 to 2008. The empirical investigation has been carried out by Pairwise Granger Causality and Vector Autoregression (VAR) modelling using modern econometrics techniques of unit root test since macroeconomic time series data was used which is frequently non stationary. The findings confirmed that there is uni-directional causality between education and economic growth in the Zimbabwean economy running from education to economic growth as established by granger causality tests, variance decomposition and impulse response functions. This shows that investing in education is important for economic growth. The results also confirm a transmission mechanism that runs from education to economic growth via physical capital investment. This shows that a rise in human capital boosts the return on physical investment. The study recommends that the government and the private sector should concentrate on policies that will improve the education system.

**Keywords** : Education, Economic Growth, Causality, FStatistic Testing, VAR and Zimbabwe.

**GJMBR-B Classification**: FOR Code: 140204 JEL Code: P51, P52



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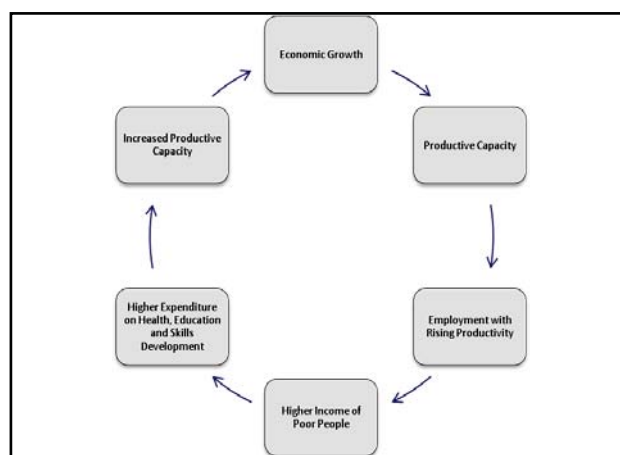
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## 1. INTRODUCTION

Education can be viewed as both a consumer good and a capital good because it offers utility to a consumer and also serves as an input into the production of other goods and services. As a capital good, education can be used to develop the human resources necessary for economic and social transformation and thus leads to economic growth. The focus on education as a capital good relates to the concept of human capital, which emphasises that the development of skills is an important factor in production activities. Education is seen as contributing to economic growth in two ways. Firstly, education directly affects economic growth through making individual workers more productive. Secondly, education indirectly affects economic growth by leading to the creation of knowledge, ideas and technological innovation – either through the process of acquiring education itself or because education is a key input into the development of a research sector that produces new knowledge and ideas. Growth and human capital development can be mutually reinforcing. Growth promotes human capital development, and human development promotes growth (Jaoul, 2004). The following figure shows the relationship between

education, physical capital investment and economic growth;

*Figure 1* : Virtuous cycle of links between economic growth, human capital and physical capital



Source : Selim (2006: 8).

The virtuous cycle in figure 1 shows that education and economic growth reinforce each other and therefore depends upon each other. As the economy grows, it indicates that productive capacity has increased which comes with it an increase in employment. This increase in employment will result in higher incomes and thus a greater expenditure on education with more people getting access to education. As more people get education, their productive capacity increases and thus contribute to economic growth. This virtuous cycle will continue to repeat itself until the economy develops and as a result contributes to a significant reduction in poverty. Therefore, the objective of this paper is to investigate the causal relationship between economic growth and education with a link to physical capital so as to make informed policies related to education and economic growth.

The rest of the paper is structured as follows; section 2 gives the background to education and economic growth in Zimbabwe, section 3 reviews the literature on the relationship between education and economic growth, section 4 outlines the methodology used in the study, section 5 gives the results and their discussion while section 6 concludes by giving conclusions and policy recommendations.

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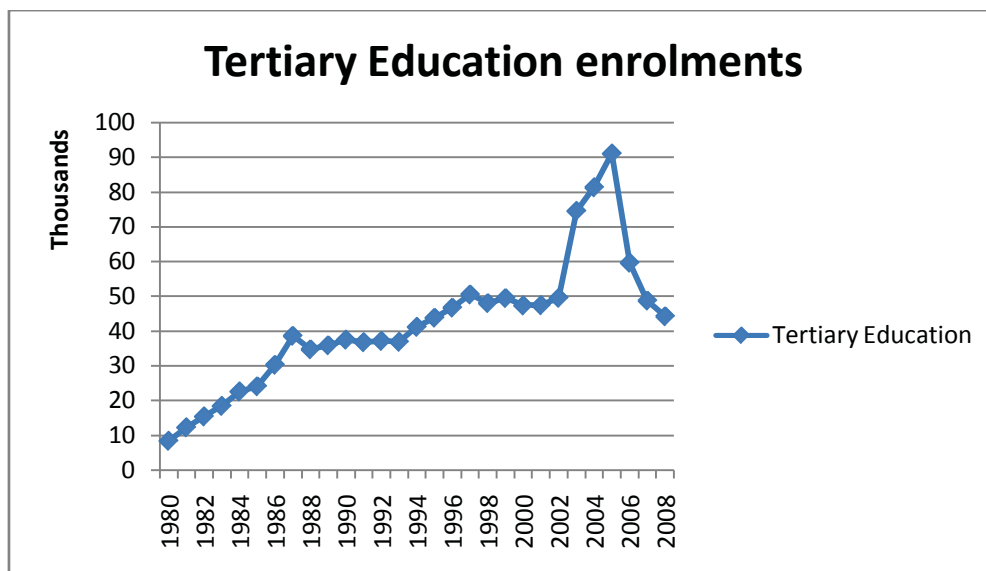
## II. BACKGROUND TO EDUCATION AND ECONOMIC GROWTH IN ZIMBABWE

### a) *Trend in Tertiary education enrolments in Zimbabwe<sup>1</sup>*

The enrolment in tertiary education showed an upward trend from 1980 to 1987. This shows an increase in gross enrolment of 364%. During this first period after independence, more tertiary institutions were constructed by the government which includes teacher training colleges, agricultural colleges, technical colleges and universities. After this the enrolment stabilised at around 35 000 per year from 1988 to 1993. Tertiary education enrolment picked up in

1994 and steadily increased by 37% to reach a peak in the year 1997. This was followed by a stable enrolment of around 48 000 between 1998 and 2002. This was a period affected by the drought in the history of Zimbabwe. Political tension also occurred during the same period as the Movement for Democratic Change (MDC), one of the main political parties in Zimbabwe came into being. Enrolment then increased sharply between 2002 and 2005 giving an increase by 84% before sharply dropping by 51.4% between 2005 and 2008. This was a period of economic and political crisis in Zimbabwe and this impacted negatively on gross tertiary enrolments. Figure 3 below shows the trend in tertiary education enrolment from 1980 to 2008.

Figure 3 : Tertiary Education Enrolments



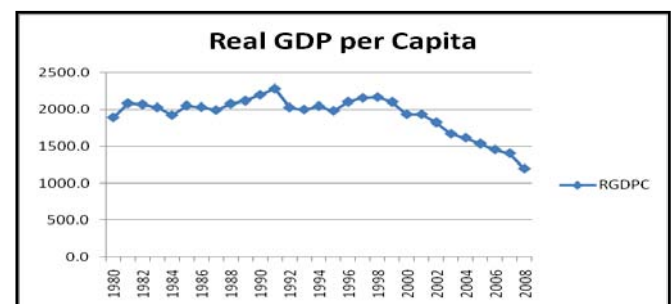
Source : Author's compilations from CSO various publications and Ministry of Higher and Tertiary Education.

### b) *Trend in real GDP per Capita<sup>2</sup>*

Real GDP per capita shows an upward trend between 1980 and 1982. After this, real GDP per capita dropped during the period 1983 to 1984 as a result mainly of drought. The contribution of agriculture to GDP dropped from 17.8% in 1981 to 11.2% in 1984. Real GDP per capita followed an upward trend from 1985 to 1991 before declining in 1992 (CSO statistical Year Book, 2003). The sharp decline was also a result of the drought that hit the economy in 1992. The agriculture's contribution to GDP dropped to 7.4% in 1992. The GDP per capita followed a steady pattern between 1993 and 1996 before increasing from 1997 to a reach a peak in 1998. The economy dropped between 1999 and

2008. This could be explained by the controversial land reform that started in 2000, the drought that hit the economy in 2002 and the political and economic crises that occurred during the period. Figure 3 shows the trend in real GDP per capita in Zimbabwe from 1980 to 2008;

Figure 3 : Growth rate in real GDP per capita (in millions of Z\$)



Source: Author's compilations from various CSO publications

<sup>1</sup> The trend in Real GDP per Capita was established by the author using the Central Statistical Office data and data from the Ministry of Higher and Tertiary Education for the period 1980 to 2008.

<sup>2</sup> The trend in Real GDP per Capita was established by the author using the Central Statistical Office data from its Statistical Year Books for the period between 1980 and 2008.

The trends in both tertiary education enrolment and real GDP per capita in Zimbabwe displayed a common trend implying that either education contributed towards economic growth or economic growth contributed towards education. It is also possible that the two could be mutually reinforcing each other. The two could not be represented on one framework because of significant differences in their scales.

### III. LITERATURE REVIEW

#### a) *Theoretical relationship on education and economic growth*

Following Lucas (1988) and Loening (2002), human capital is considered an independent factor of production and this is enshrined in endogenous growth models. This is presented by the Cobb-Douglas production function with constant returns to scale as follows:  $Y_t = A.K^\alpha H^\theta L^{(1-\alpha-\theta)}$  where Y is defined as output; A is the total factor productivity or the technical change; K is physical capital, H is human capital and L is labour. This model can also be expressed as a per capita growth model.

The growth of the economy depends on the physical capital investment and human capital stock (education) that it has. Traditionally, investment is widely believed to be an important determinant of economic growth but recent research hinges on the importance of education. Human capital represents the investment people make in themselves that augment their economic productivity. The theoretical framework that looks at the adoption of education as a form of investment has become known as human capital theory. Based upon the work of Schultz (1971), Sakamoto and Powers (1995), Psacharopoulos and Woodhall (1997), human capital theory rests on the assumption that formal education is highly instrumental and even necessary to improve the production capacity of a population, that is an educated population is a productive population.

Nelson and Phelps (1966) and Benhabib and Spiegel (1994) argued that a more educated labour force would innovate faster. Lucas (1988) and Mankiw, Romer, and Weil (1992) observed that the accumulation of human capital could increase the productivity of other factors and thereby raise growth of the economy. In the Lucas and Mankiw, Romer, and Weil models, a state's rate of growth depends on the rate of accumulation of human capital.

#### b) *Empirical literature review*

The early work on education and growth includes the work of Lucas (1988) which revealed that the growth rate of human capital, which is also

dependent on the amount of time allocated by individuals to acquire skills, is critical for growth. The model was further extended by Rebelo (1991) by introducing physical capital as an additional input in the human capital accumulation function. The model of endogenous growth by Romer (1990) assumes that the creation of new ideas is a direct function of human capital, which manifests itself in the form of knowledge. As a result, investment in human capital leads to growth in physical capital which in turn leads to economic growth. Studies that supported the human capital accumulation as a source of economic growth also include (Benhabib and Spiegel, 1994). Some studies have examined different ways through which human capital can affect economic growth. Gupta and Chakraborty (2004) develop an endogenous growth model of a dual economy where human capital accumulation is the source of economic growth. They argued that the duality between the rich individual exists in the mechanism of human capital accumulation.

Bils and Klenow (2000) raise the issue of causality, suggesting that reverse causation running from higher economic growth to additional education may be at least as important as the causal effect of education on growth in the cross-country association.

De Meulemeester and Rochat (1995) tested for Granger causality between higher education enrolments and economic growth in six countries (Sweden, United Kingdom, Japan, France, Italy and Australia)<sup>3</sup> for different periods for each country ranging from 1885 to 1987. They found uni-directional short run causality running from higher education enrolments to economic growth in Sweden, the United Kingdom, Japan, and France and bi-directional causality between higher education enrolments and economic growth in Australia and Italy.

Using US annual data for the period 1949 to 1984, In and Doucouliagos (1997) found bi-directional causality between economic growth and human capital formation. Asteriou and Agiomirgianakis (2001) also found bi-directional causality between the same variables for Greece using annual data from 1960 to 1994.

During the period before the Second World War, Jaoul (2004) analysed causality between higher education and economic growth in France and Germany and obtained results which confirms that higher education has an influence on gross domestic product for France while no relationship was found for Germany. Bo-nai and Xiong-Xiang (2006), using Chinese annual data from 1952 to 2003, showed that there is an evidence of a bi-directional causality between education investments and economic growth.

Kui (2006), using annual data for China from 1978 to 2004 established that economic growth was the cause of higher education.

<sup>3</sup> Sweden (1910–1986), United Kingdom (1919–1987), Japan (1885–1975), France (1899–1986), Italy (1885–1986), and Australia (1906–1986).



Hunang, Jin, and Sun (2009) analysed the causality between scale evolution of higher education and economic growth in China, for the period 1972 and 2007. The results confirm that there is a long-run steady relationship between higher education and GDP per capita.

Pradham (2009) employed the error correction modeling technique to show that there is uni-directional causality that runs from higher education to economic growth for India using annual data from 1951 to 2002.

The Johansen co-integration and Tod and Yamamoto causality approaches were used in VAR framework by Chaudhary, Iqbal and Gillani (2009) to analyse the relationship between higher education and economic growth for Pakistan for the period 1972 to 2005. The obtained results demonstrated that there was unidirectional causality running from economic growth to higher education.

For Northern Cyprus, Katircioglu (2009) demonstrated that long-run equilibrium relationship exists between higher education growth and economic growth. The results suggested uni-directional causality that runs from higher education to economic growth.

Most studies done were from the developed world and no study of this nature has been done for the case of Zimbabwe. The studies done have continued to provide mixed results with some showing uni-directional causality while others show bi-directional causality. Therefore, this paper contributes to the existing literature by employing granger causality testing to test the causal relationship between human capital stock and real income using annual data for Zimbabwe (a developing country) from 1980 to 2008. An understanding of the nature of the relationship will aid in policy making and implementation.

## IV. METHODOLOGY AND DATA DESCRIPTIONS

Clearly, the education-growth relationship is not so simple that one can compute average years of education and confidently predict growth. I believe my model clarifies matters. The methodology employed in this study is a quantitative one that involves first performing unit root tests before running the main model of Granger Causality Tests and VAR.

### a) Unit Root Tests

The variables to be used in this study are time series variables which are usually non-stationary. These variables should be tested for stationarity before they are used in the model. If the variables are stationary in levels, that is, without differencing, they are said to be integrated of order 0. If they become stationary after first differencing they are said to be non stationary in levels and require to be differenced once to become stationary and thus are integrated of order 1. Differencing a variable twice to achieve stationarity means the variable is integrated of order 2.

### b) Granger Causality Tests

The Granger Causality test as proposed by Granger (1969) and Sims (1972) is used to test whether one variable is useful in forecasting another variable and vice-versa. In general, a time series X is said to Granger cause another time series Y if it can be shown that the series X values provide statistically significant information about the future values of series Y, if not, X does not Granger cause Y. This is confirmed by a probability value that falls within the range of 1% and 10% or an F-statistic that takes an absolute value of at least 2. The larger the value, the more significant it becomes. The F-Statistic is constructed as follows;

#### i. The F statistic Testing

We use the F-statistics to test the validity of causality. It depends upon the restricted residual sum squares ( $RSS_1$ ) and unrestricted residual sum squares ( $RSS_2$ ). F is calculated as follows;

$$F = \frac{(RSS_1 - RSS_2) / m}{(RSS_2) / (n - k)}$$

and  $F$  follows a normal distribution,  $(m, n - k)$ .

Where, m is the number of lags; k is the number of parameters involved in the model; and n is the sample size. The test is to reject the null hypothesis of non-causality between education and economic growth against an alternative hypothesis of causality between the two. If the realisation of the above statistic is significant, then we reject the non-causality hypothesis and conclude that education causes economic growth and vice versa. If it is not significant, then the non-causality hypothesis is accepted and concludes that education does not cause economic growth and vice versa.

Causality can either be uni-directional or bi-directional. The null hypothesis of no causality is tested against the alternative hypothesis of causality between two variables. In a two variable model X and Y, the following two equations are estimated;

$$Y_t = \sum_{i=1}^m \alpha_i X_{t-i} + \sum_{i=1}^m \beta_i Y_{t-i} + u_{1t} \quad (1)$$

$$X_t = \sum_{i=1}^m \delta_i Y_{t-i} + \sum_{i=1}^m \theta_i X_{t-i} + u_{2t} \quad (2)$$

Where  $u_{1t}$  and  $u_{2t}$  are serially uncorrelated random disturbances with zero mean. If X Granger causes Y;  $H_0 : \alpha_1 = \alpha_2 = \alpha_3 = \dots = \alpha_m = 0$  is rejected against the alternative hypothesis. This means that there is statistical evidence to accept the alternative hypothesis,  $H_1$ . Similarly, if Y Granger causes X;  $H_0 : \theta_1 = \theta_2 = \theta_3 = \dots = \theta_m = 0$  is rejected against the



alternative hypothesis. This means that there is statistical evidence to accept the alternative hypothesis,  $H_1$ .

#### c) The Vector Autoregressive (VAR) model

The study also uses a VAR framework to establish the direction of causality between education and economic growth. This should be done after testing the variables of the model for unit root tests using ADF test. The VAR methodology, although it does not have a sound theoretical framework, it can be used to test inter-dependent relationships among variables. In a VAR framework all variables are treated as endogenous variables and is a substitute methodology to simultaneous equations. The methodology will also employ innovation accounting and impulse response functions which are superior approaches to the traditional granger causality tests.

##### i. The VAR Model Specification

The VAR model to be used in our analysis is as follows;

$$X_t = \sum_{i=1}^n \beta_i X_{t-i} + \mu_t$$

where

$$X_t = (PCRGDP_t, INVESTMENT_t, EDUCATION_t)$$

which is a 3x3 vector of variables and  $\beta_1 - \beta_n$  are 3x3 matrices of coefficients while  $\mu_t$  is a vector of error terms.

If all the variables of the model are integrated of the same order, that is, I (1), then a VECM can be constructed in which all variables enters the above model in their first differences.

##### ii. Cointegration within VAR

Cointegration refers to the situation where two or more non stationary series of the same order are found to have a long run relationship. Suppose a series  $Y_t$  and  $X_t$  are individually non-stationary and integrated of order one, I (1), we say they are integrated if their linear combination is integrated of order zero, I (0). If the variables are integrated of the same order, cointegration tests will be performed. If the variables are integrated of different orders, then the unrestricted VAR framework will be employed.

##### iii. Variance Decomposition

Variance decomposition permits inferences to be drawn regarding the proportion of the movement in a particular time-series due to its own earlier "shocks" vis-à-vis "shocks" arising from other variables in the VAR. After estimating the VAR, the impact of a "shock" in a particular variable is traced through the system of equations to determine the effect on all of the variables, including future values of the "shocked" variable. The

technique breaks down the variance of the forecast errors for each variable following a "shock" to a particular variable and in this way it is possible to identify which variables are strongly affected and those that are not.

#### iv. Impulse Response Functions

The impulse response function analysis traces the time path of the effects of "shocks" of other variables contained in the VAR on a particular variable. In other words, this approach is designed to determine how each variable responds over time to an earlier "shock" in that variable and to "shocks" in other variables. If the impulse response function shows a stronger and longer reaction of economic growth to a "shock" in education than "shocks" in other variables, we would find support for the hypothesis that education causes economic growth. Similarly, if the impulse response function shows a stronger and longer reaction of education to a "shock" in economic growth than "shocks" in other variables, we would find support for the hypothesis that economic growth "causes" education.

In this study causality on the following three variables will be tested, that is on, Economic Growth, Education and Investment. The variables are transformed to logarithms so as to improve on their statistical properties. However, the variable for economic growth was not expressed in logarithms since some values of this series are negative and thus there is no logarithm of a negative number. Therefore, the overall model is a semi-log model.

#### d) Variables of the model

In this model three variables will be used that is Economic growth, Education investment and aggregate investment. This is so because of their interrelatedness in growth in endogenous growth models. The number of variables has been limited to only 3 to ensure a sufficient number of observations. This is because of a small sample size used.

##### i. Economic growth measured by per capita Real GDP (PCRGDP)

Economic growth is defined as the increase in a nation's ability to produce goods and services over time as is shown by increased production levels in the economy. A growth in this per capita RGDP indicates an improvement in standards of living for citizens and hence leads to poverty reduction. This is the commonly used measure of economic growth as also used by Romer (1990), Rebelo (1991), Gupta and Chakraborty (2004) and Huang et al (2009). Economic growth is expected to relate positively and significantly with education and physical capital investment.

##### ii. Human capital (Education)

This refers to investment in education. New technological developments are futile if skills are in short

supply, implying that there are significant synergies between new knowledge and human capital. It has been shown that education is an important empowering tool for gender equity and thus is assumed to significantly contribute to economic growth and poverty reduction (Ministry of Education, Sport, Arts and Culture, 2007). In this study education is proxied by time series variable of tertiary education enrolments (Huang et al, 2009) which sums university enrolment, teacher training colleges enrolment, agricultural training colleges enrolment and technical colleges enrolment for the period under study. This variable was chosen as it contributes directly to skilled human capital. This is a quantity measure of education which closely relates to the quality of education in the country. Secondary school enrolment used in some studies (such as by Musibau, 2005) suffers from the fact that not all students from secondary schools will constitute skilled human capital in the economy. In addition, secondary education only contributes to economic growth after a considerably long period as compared to tertiary education. Education expenditure is another variable that could be used as a proxy for education but it also fails to reflect the quality of education in the economy. The variable chosen is expected to positively and significantly relate with economic growth and physical capital investment.

### iii. *Physical capital Investment (LINV)*

Physical capital (investment) refers to an increase in capital stock in the economy and is one of the traditional determinants of economic growth. Gross Fixed Capital Formation is used as a proxy for physical capital investment. This variable is used in this model as a control variable and also because investment has a

bearing on both economic growth and human capital development. Chakraborty (1994) and Msibau (2005) also included physical capital (investment) as an important determinant in their growth models. This variable is expected to have a significant relationship with economic growth and education and vice versa.

### e) *Data sources*

The annual data for the study is secondary data obtained from the Central Statistical Office and the Ministry of Higher and Tertiary Education. Only these sources of data were used for consistency. The time series data for the study span from 1980 to 2008. The period is fairly long enough to get accurate relationship between education investment and economic growth in Zimbabwe.

## V. ESTIMATION OF RESULTS AND INTERPRETATION

### a) *Stationarity tests*

Unit root tests are performed on the following variables, Economic growth (PCRGDP), Human Capital as measured by Tertiary Education Enrolment (LTEDU) and Physical Capital Investment (LINV). The results show that PCRGDP is stationary in levels while the other two variables become stationary after second differencing. This shows that the variables cannot be co-integrated and only an unrestricted VAR model can be estimated. Therefore, the variables will be used to test for Pairwise Granger causality and VAR according to their levels of stationarity. PCRGDP will not be differenced while LTEDU and LINV will be differenced twice. Table 1 summarises the unit root tests;

*Table 1 : Unit Root Tests*

Variable	ADF test Statistic	1% critical Value	5% critical Value	10% Critical Value	Result
PCRGDP	-4.169580**	-4.3382	-3.5867	-3.2279	Stationary (0)
LTEDU	-4.033913***	-4.3738	-3.6027	-3.2367	Stationary(2)
LINV	-5.119735***	-2.6603	-1.9552	-1.6228	Stationary(2)

\*\*\*Significant at 1%, \*\* significant at 5% and \*significant at 10%.

Note : A constant and a trend option were used for levels and first differences while no trend and constant option was used for 2nd differencing.

### b) *Pairwise Granger Causality Tests<sup>4</sup>*

*Table 2 : Pairwise Granger Causality Tests*

Null Hypothesis	Observations	F-Statistic	Probability
DDLINV does not Granger Cause PCRGDP	23	2.49972*	0.0900
PCRGDP does not Granger Cause DDLINV		0.74958	0.5745
DDLTEDU does not Granger Cause PCRGDP	23	3.28621**	0.0426
PCRGDP does not Granger Cause DDLTEDU		0.59217	0.6740
DDLTEDU does not Granger Cause DDLINV	23	2.41605*	0.0979
DDLINV does not Granger Cause DDLTEDU		0.81387	0.5371

\*\*\*Significant at 1%, \*\* significant at 5% and \*significant at 10%.

The results in table 2 indicate that there is a uni-directional causality between economic growth and education. This is so because the null hypothesis of education does not cause economic growth was rejected at the 5% levels of significant. This clearly indicates that education causes economic growth. However, the reverse causality that economic growth causes education was found to be insignificant. This means that as education enrolment improves more skills are contributing to the growth of the economy, holding other factors constant. There is also a uni-directional causality running from investment to economic growth as the null hypothesis of no causality is rejected at the 10% level of significance. This is supported by theory which states that investment is a major determinant of economic growth. Investment also has a significant impact on education as the null hypothesis of no causality is rejected at the 10% level of significance. This shows that investment is an important variable in determining education in Zimbabwe.

### c) Estimation Results for VAR

Before the VAR model is estimated, the optimal lag length was chosen using the Akaike Information Criteria (AIC). As Enders (1995) suggested, the optimal lag is selected based on the lowest values of AIC. A VAR with the least AIC<sup>5</sup> was selected and this was found to be 4.

#### i. Variance Decomposition

Therefore 4 lags were used in the VAR model. Tables 3, 4 and 5 give the variance decompositions for the three variables included in the model. It can be noted that own series shocks explain most of the error variance even though the shock will also affect the other variables in the system.

Appendix 1 shows the variance decomposition tables for the 3 variables used in the analysis. Table 3 shows the variance decomposition for tertiary education. The results show that less than 5% of the shocks in tertiary education is explained by economic growth and physical capital investment throughout the period chosen. This confirms that either investment or economic growth do not cause education.

Deviations in investment are a result of tertiary education starting from the second period. The effect of tertiary education on investment significantly increases over time suggesting that investment significantly causes tertiary education. Economic growth only explains a maximum of 13% of deviations in tertiary education confirming that economic growth is not a significant cause of investment.

Lastly, much of the deviations in economic growth are caused by investment, starting to contribute

11% in the first period which gradually increases to a maximum of 33% in the 4th period. This shows that investment is an important driver of economic growth as also confirmed by theory. Tertiary education is another important variable that significantly explains deviations in economic growth. It started off by contributing 11% in the second period before rising to a maximum of 47% in the 5th period which stabilises at that rate throughout the entire period. This result suggests that tertiary education causes economic growth.

#### ii. Impulse Response Functions

Appendix 2 shows the impulse response functions for tertiary education, investment and economic growth. The response of a variable to itself is highly significant in the initial periods before other variables become influential. The response of economic growth (PCRGDP) to tertiary education is positive and significant. The response of tertiary education to economic growth is insignificant. This shows that tertiary education is an important variable that influences economic growth. The response of economic growth to investment is also positive and significant. The response of investment to economic growth is insignificant. This shows that investment causes economic growth and not vice versa. The response of investment to tertiary education is significant while the response of tertiary education to investment is insignificant. This shows that tertiary education causes investment and not vice versa.

## VI. CONCLUSIONS AND POLICY RECOMMENDATIONS

### a) Conclusions

The empirical results from granger causality tests, variance decomposition and impulse response functions confirm a uni-directional causality between education and economic growth in Zimbabwe. While education matters for growth, the reverse is not equally true. This confirms that investing more resources in human capital development is vital for labour productivity and growth of the economy. This in turn will lead to poverty reduction. The results also confirm that education can lead to economic growth through its impact on physical investment. Investing in human capital will lead to improvement in physical capital productivity which in turn leads to economic growth. A rise in human capital boosts the return on physical capital. Therefore, more resources should be put to the education sector, both public and private.

### b) Policy Recommendations

The results from this study confirm that the education-economic growth relationship is a one way relationship. While education matters for economic growth, the reverse is not equally true. This result has a number of policy implications. The first one is that they support the role of human capital development in

<sup>4</sup> A lag length of 4 was chosen using the Akaike Information Criteria.

<sup>5</sup> With a lag of 1, AIC=7.4675, with a lag of 2, AIC=7.5007, with a lag of 3, AIC=7.5698 and with a lag of 4, AIC is 7.4120.

investment, economic growth and development. Therefore there is need to increase not only the quantity of resources but also the quality of resources into the education sector. This is in line with the Nziramasanga (1999) commission of inquiry into the education system in Zimbabwe which also recommends the need to increase resources into the education sector for it to contribute meaningfully to economic development. A more educated labour force will have a higher marginal productivity of labour and thus contributes more to national output. Investment in education should also be demand-driven as this will make it meet the demands of the industry in light of the dynamic nature of production methods. There is also need for adequate training even after tertiary education to ensure that education skills are more relevant for economic growth. Students at tertiary institutions also need a lot of mentoring well before they finish their education as this ensures that they adequately prepare themselves for their chosen fields and thus contribute to economic growth and poverty reduction.

Emphasis should also be put on enlarging the participation of women in education as this is perceived to contribute more to economic growth through reduced fertility, late marriages and leads to a more educated future generation through the encouragement of children. This will significantly contribute to poverty reduction.

Secondly, there is need for a shared responsibility in educating our population. This means that the private sector should also play a major role in the education sector through paying fees for students particularly the more vulnerable ones, like the girl-child and the orphans. They can also assist with infrastructure on education and that which is closely linked to education, food and education materials provision. This will enhance the impact of education on economic growth and poverty reduction. The private sector can also assist with the remunerations for staff since this has a bearing on their performance and the ultimate performance of the students.

However, future studies can focus on using other measures of education such as those that focus on the quality of education rather than on the quantity. This study failed to do that due to data unavailability. Such measures include cognitive skills which show attainment rates for particular grades especially in mathematics and science, individuals' average years of schooling of population aged 25 and 64 and experience at work places. A strong rise in the years of education of a high quality is particularly relevant for economic growth but the challenge is that it is difficult to measure especially in developing countries such as Zimbabwe. To this end, high enrolment rates together with efficient use of financial resources are necessary but not exhaustive conditions for economic growth.

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# APPENDICES

## Appendix 1 : Variance Decomposition Tables

Table 3 : Variance Decomposition for DDLTEDU

Period	S.E.	DDLTEDU	DDLINV	PCRGDP
1	0.132953	100	0	0
2	0.147674	98.6401	1.358669	0.001228
3	0.149766	95.92398	3.893755	0.182262
4	0.1962	93.76735	4.148887	2.083766
5	0.201138	91.57234	4.159214	4.268446
6	0.20353	91.01019	4.821066	4.168742
7	0.23524	93.11555	3.62191	3.262544
8	0.243455	93.35292	3.415165	3.231912
9	0.243838	93.23465	3.437663	3.327687
10	0.265576	93.9999	3.014176	2.985922

Table 4 : Variance Decomposition for DDLINV

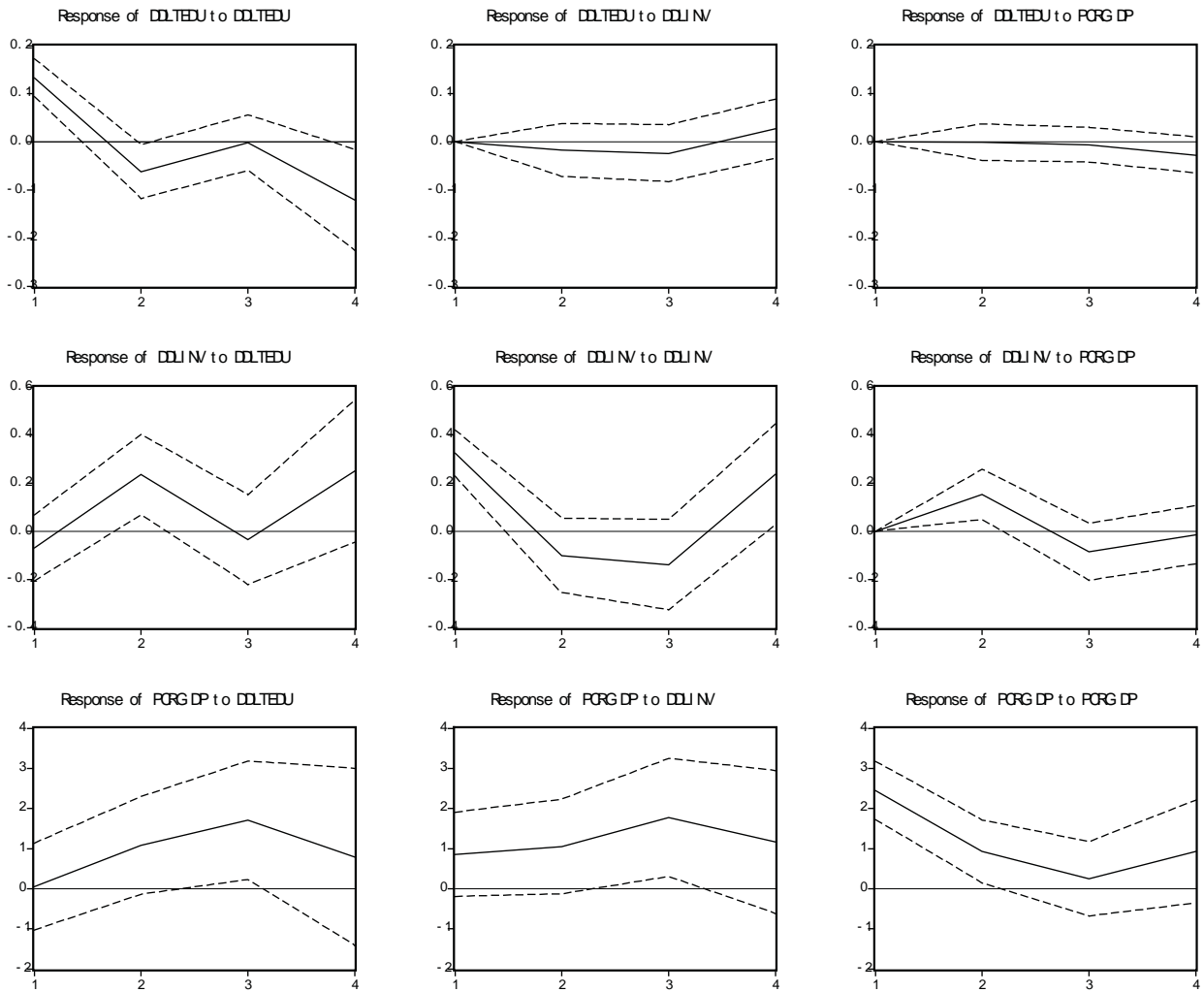
Period	S.E.	DDLTEDU	DDLINV	PCRGDP
1	0.332286	4.237047	95.76295	0
2	0.446605	30.18003	58.10556	11.71442
3	0.476901	27.01032	59.48867	13.50101
4	0.588477	35.89705	55.17643	8.926515
5	0.701082	54.43792	38.90116	6.660927
6	0.752623	54.9954	39.21613	5.788476
7	0.787784	55.70925	38.1143	6.176446
8	0.827345	56.9001	35.57585	7.524051
9	0.845874	55.57762	36.90615	7.51623
10	0.864496	57.43756	35.3354	7.227039

Table 5 : Variance Decomposition for PCRGDP

Period	S.E.	DDLTEDU	DDLINV	PCRGDP
1	2.592462	0.040953	10.96689	88.99216
2	3.137341	11.8007	18.71127	69.48803
3	3.994078	25.50605	31.25105	43.2429
4	4.334513	24.9317	33.76839	41.29991
5	5.417441	47.36118	25.5491	27.08972
6	5.460858	47.06743	26.03614	26.89643
7	5.478846	47.39748	25.87483	26.72769
8	5.655308	46.83071	27.44988	25.71941
9	5.704444	46.03264	27.844	26.12337
10	5.826616	47.25036	27.60707	25.14257

## Appendix 2 : Impulse Response Functions

Response to One S.D. Innovations  $\pm 2$  S.E.



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**14. Produce good diagrams of your own:** Always try to include good charts or diagrams in your paper to improve quality. Using several and unnecessary diagrams will degrade the quality of your paper by creating "hotchpotch." So always, try to make and include those diagrams, which are made by your own to improve readability and understandability of your paper.

**15. Use of direct quotes:** When you do research relevant to literature, history or current affairs then use of quotes become essential but if study is relevant to science then use of quotes is not preferable.



**16. Use proper verb tense:** Use proper verb tenses in your paper. Use past tense, to present those events that happened. Use present tense to indicate events that are going on. Use future tense to indicate future happening events. Use of improper and wrong tenses will confuse the evaluator. Avoid the sentences that are incomplete.

**17. Never use online paper:** If you are getting any paper on Internet, then never use it as your research paper because it might be possible that evaluator has already seen it or maybe it is outdated version.

**18. Pick a good study spot:** To do your research studies always try to pick a spot, which is quiet. Every spot is not for studies. Spot that suits you choose it and proceed further.

**19. Know what you know:** Always try to know, what you know by making objectives. Else, you will be confused and cannot achieve your target.

**20. Use good quality grammar:** Always use a good quality grammar and use words that will throw positive impact on evaluator. Use of good quality grammar does not mean to use tough words, that for each word the evaluator has to go through dictionary. Do not start sentence with a conjunction. Do not fragment sentences. Eliminate one-word sentences. Ignore passive voice. Do not ever use a big word when a diminutive one would suffice. Verbs have to be in agreement with their subjects. Prepositions are not expressions to finish sentences with. It is incorrect to ever divide an infinitive. Avoid clichés like the disease. Also, always shun irritating alliteration. Use language that is simple and straight forward. put together a neat summary.

**21. Arrangement of information:** Each section of the main body should start with an opening sentence and there should be a changeover at the end of the section. Give only valid and powerful arguments to your topic. You may also maintain your arguments with records.

**22. Never start in last minute:** Always start at right time and give enough time to research work. Leaving everything to the last minute will degrade your paper and spoil your work.

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**24. Never copy others' work:** Never copy others' work and give it your name because if evaluator has seen it anywhere you will be in trouble.

**25. Take proper rest and food:** No matter how many hours you spend for your research activity, if you are not taking care of your health then all your efforts will be in vain. For a quality research, study is must, and this can be done by taking proper rest and food.

**26. Go for seminars:** Attend seminars if the topic is relevant to your research area. Utilize all your resources.

**27. Refresh your mind after intervals:** Try to give rest to your mind by listening to soft music or by sleeping in intervals. This will also improve your memory.

**28. Make colleagues:** Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

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**33. Report concluded results:** Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

**34. After conclusion:** Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium through which your research is going to be in print to the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects in your research.

## INFORMAL GUIDELINES OF RESEARCH PAPER WRITING

### Key points to remember:

- Submit all work in its final form.
- Write your paper in the form, which is presented in the guidelines using the template.
- Please note the criterion for grading the final paper by peer-reviewers.

### Final Points:

A purpose of organizing a research paper is to let people to interpret your effort selectively. The journal requires the following sections, submitted in the order listed, each section to start on a new page.

The introduction will be compiled from reference matter and will reflect the design processes or outline of basis that direct you to make study. As you will carry out the process of study, the method and process section will be constructed as like that. The result segment will show related statistics in nearly sequential order and will direct the reviewers next to the similar intellectual paths throughout the data that you took to carry out your study. The discussion section will provide understanding of the data and projections as to the implication of the results. The use of good quality references all through the paper will give the effort trustworthiness by representing an alertness of prior workings.

Writing a research paper is not an easy job no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record keeping are the only means to make straightforward the progression.

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To make a paper clear

· Adhere to recommended page limits

Mistakes to evade

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- Separating a table/chart or figure - impound each figure/table to a single page
- Submitting a manuscript with pages out of sequence

In every sections of your document

- Use standard writing style including articles ("a", "the," etc.)
- Keep on paying attention on the research topic of the paper
- Use paragraphs to split each significant point (excluding for the abstract)
- Align the primary line of each section
- Present your points in sound order
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- Use past tense to describe specific results
- Shun familiar wording, don't address the reviewer directly, and don't use slang, slang language, or superlatives
- Shun use of extra pictures - include only those figures essential to presenting results

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The summary should be two hundred words or less. It should briefly and clearly explain the key findings reported in the manuscript-- must have precise statistics. It should not have abnormal acronyms or abbreviations. It should be logical in itself. Shun citing references at this point.

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shortening the outcome. Sum up the study, with the subsequent elements in any summary. Try to maintain the initial two items to no more than one ruling each.

- Reason of the study - theory, overall issue, purpose
- Fundamental goal
- To the point depiction of the research
- Consequences, including definite statistics - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

Approach:

- Single section, and succinct
- As a outline of job done, it is always written in past tense
- A conceptual should situate on its own, and not submit to any other part of the paper such as a form or table
- Center on shortening results - bound background information to a verdict or two, if completely necessary
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- Explain the value (significance) of the study
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- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
- Very for a short time explain the tentative propose and how it skilled the declared objectives.

Approach:

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This part is supposed to be the easiest to carve if you have good skills. A sound written Procedures segment allows a capable scientist to replacement your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt for the least amount of information that would permit another capable scientist to spare your outcome but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section. When a technique is used that has been well described in another object, mention the specific item describing a way but draw the basic



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- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

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- Report the method (not particulars of each process that engaged the same methodology)
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- To be succinct, present methods under headings dedicated to specific dealings or groups of measures
- Simplify - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

#### Approach:

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#### What to keep away from

- Resources and methods are not a set of information.
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- Leave out information that is immaterial to a third party.

#### Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently. You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.

#### Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

#### What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.

- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
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#### Approach

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The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a argument should be. Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly described. Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved with prospect, and let it drop at that.

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- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

#### Approach:

- When you refer to information, differentiate data generated by your own studies from available information
- Submit to work done by specific persons (including you) in past tense.
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<b>Introduction</b>	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
<b>Methods and Procedures</b>	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
<b>Result</b>	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
<b>Discussion</b>	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
<b>References</b>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring



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