

**An Exploratory Study of the Linkage between  
Organizational Intelligence and Organizational  
Performance with reference to Small and Medium  
Enterprises of India**

**THESIS**

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# Chapter VII

## Conclusion

### 7.0 Introduction

In the Earlier Chapter we discussed the Data Analysis and the Findings and the summary of findings. In this Chapter we will discuss about the Inferences from the findings, Implications and recommendations to achieve strategic advantage for the small and medium enterprises (SME) which are the main population of this study. This chapter will speak about the suggestions and the business policy design needs of small and medium businesses for gaining competitive advantage. This chapter will also discuss about the key deliverables from the research study and the benefits to SMB (Small and Medium Businesses) and the recommendations for future study. Section 7.1 discusses the inferences from key findings of the earlier chapter. Section 7.2 discusses the model developed for measuring OI. Section 7.3 discusses the model that establishes the linkage between OI and OP. Section 7.4 discusses other capabilities found with the organizations studied. Section 7.5 discusses the applications of this research study. Section 7.6 discusses the recommendations in the current study. Section 7.7 discusses the recommendations for the future. Section 7.8 concludes the chapter.

## 7.1 Inferences from Findings

The entire research is largely based on the perspectives on their business results, performance and organizational capabilities of business owners and senior business executives of small and medium business managed by joint families of rural and urban sectors of India. These businesses perceive Organizational Intelligence with certain specific aspects which are churned out to be the factors driving Organizational Intelligence in this population of study. These businesses define Organizational Performance from the Financial Performances of the businesses. They also consider Financial Performances as Financial Returns largely as we find, these businesses looking at Financial Returns depending on 26 variables governed by Organizational Intelligence. There are two important outcomes of this research study. One is a scale for measuring OI and the other is the linkage between OI (Organizational Intelligence) and OP (Organizational Performance).

### Part I

## 7.2 Components of OI Scale

We constructed an instrument that measures OI through ten different indices. They are, Organizational Value Orientation Index, Maturity Index, Organizational Competitiveness Index, Organizational Wisdom Index, Information and Knowledge Deployment Index, Infrastructural Standards Index, Systems Effectiveness Index, Process Efficiency Index, Proficiency of Planning Index and Proficiency of Execution Index. Each of these indices is measured with some capabilities.

*Organizational Value Orientation Index:* This index is a construction of variables, Ability to have awareness on stakeholder needs, Ability to encourage innovation, Capacity to utilize performance management systems effectively, having improvement on cycle time of operating systems, having high business process efficiency, and having highly efficient quality management systems.

***Maturity Index:*** This index is governed by the maturity of the business leaders indicated with the variables such as age and experience.

***Organizational Competitiveness Index:*** This Index is triggered by variables such as, Capacity to operate on customer-oriented competition analysis reports and Capacity to utilize customer and market valuation analysis.

***Organizational Wisdom Index:*** This Index measures the wisdom present in the organizations for decision making and benefiting stakeholders effectively. This is measured through variables, Ability to encourage organizational learning, Ability to apply the learning and Capacity to share profit among all employees.

***Information and Knowledge Deployment Index:*** This Index reveals the strength of the organization to deploy Knowledge and Information Intelligently. It is measured with variables, Business continuity capacity, Ability to know the trade-off between organizational goal and stakeholder Benefits and having a stable information technology network for information sharing.

***Infrastructural Standards Index:*** This Index measures the infrastructural standards. It is measured through the variables that measure the Ability to provide schemes on employee welfare and the Capacity to use information effectively, as these are possible with good infrastructural standards.

***Systems Effectiveness Index:*** This Index indicate strong and effective work systems in the organization and is measured through variables such as, Ability to incorporate societal sensitiveness in the system, Ability to focus on high level of stakeholder satisfaction, and Capacity to have effective workflow systems.

***Process Efficiency Index:*** This Index measures the efficiency of the Processes through the Ability to incorporate technology and innovation in planning, Ability to deploy new technology for business process planning and Ability to have periodic up-gradation of quality management processes.

*Proficiency of Planning Index:* this Index indicates the proficiency in strategic planning and measured through the Ability of the organization to incorporate information in strategic planning.

*Proficiency of Execution Index:* This Index indicates the strength of the organization in executing the plans effectively. It is measured through the variable - Ability of tracking the progress of action plans.

The variables of Organizational Value Orientation Index indicate certain basic values of business owners such as Learning the needs, innovation, process efficiency, performance management, quality, operational efficiency. These aspects largely point towards the capabilities of the organization and are expected to be the inherent aspects of organizational values based on business realities unlike the values such as emotional intelligence of leaders etc. This is because the entire research work is based on business realities that bite business owners rather than the softer aspects business management. Thus strategically focusing on these aspects would enhance the value system that would lead to better business realities such as financial performances.

Maturity Index is measured with the aspects such as age and total experience of the respondents. Perceptions on business understanding depend on the experiences in life and these perceptions affect the presence or dispelling of other variables in the research study. The entire study depends on perceptions of business owners and presence of maturity indicate the presence of other indices are from the perspectives of young business owners of small and medium family managed business in India. Maturity determines the perspectives about the intelligence of organizations. The entire research results should be looked at with the background of the young business owners who responded to the questionnaire.

The Third Index Organizational Competitiveness indicates the interest of the organization to organize analysis on market, customers and competitions to

enhance profitability. This Index reveals the interest of Business owners to improve competitiveness of the organization that would indicate the presence of Intelligence in Organizations.

The next Index Organizational Wisdom indicates the wisdom of leaders to encourage learning amongst employees, apply the learning suitably and obtain profits to share amongst the employees and other stakeholders. Leadership wisdom plays a considerable role in determining Organizational Intelligence.

The variables of Information and Knowledge Deployment index indicate the effective usage of information to ensure the business continuity risks at the times crisis, and identify the trade off between the objectives of the organization and the benefits of stakeholders and to strike a balance between them. This requires a constant up gradation of information and knowledge systems to study the trends of variability between goals and benefit sharing amongst the stakeholders. Having stable information and knowledge network can enhance this ability of leaders. Effective deployment of information and knowledge is achieved by the using information and knowledge wisely by the leaders. This fact comes out to be another key index driving the intelligence or organizations.

There are two key aspects considered in Infrastructural Standards Index. They are information infrastructure and infrastructure related to employee welfare, such as ergonomic conditions. According to the respondents, stable and high quality infrastructural standards can influence organizational Intelligence.

The index of Systems Effectiveness indicates having standardized systems of work flow, sensitivity to societal changes in the system, and stakeholder satisfaction will enable the organization to be well equipped to manage changes from the environments effectively. The effectiveness indicates the desire of the business to stay stable and systematic in their approach towards businesses. This is perceived to be another key factor for determining organizational Intelligence. Stability is achieved by effective systems.

The eighth index Process Efficiency reveals that periodic up gradation on innovation technology and quality will drive organizational intelligence. Having efficient processes to upgrade quality systems, increase innovative approaches and processes and incorporating state of the art technologies in business processes are believed to be the surest ways of improving the intelligence factor in the organization. There are indices indicating proficiency in planning and execution. These indices also designate Intelligence of organizations.

Thus measuring these variables will reveal 10 different components of Organizational Intelligence of the population considered. The entire scale development is based on business realities that impact business and the financial component of organizational performance.

## **Part II**

### **7.3 Linkage Between OI and OP**

The other important finding from this research is: 'OP is affected by four important Indices that construct OI'. They are, Organizational Value Orientation Index, Information and Knowledge Deployment Index, Infrastructural Standards Index and Systems Effectiveness Index.

Variables such as Organizational value Orientation, Information and Knowledge Deployment, Infrastructural Standards and systems effectiveness trigger OP.

*OP (Organizational Performance) = Financial Performance Component1= f {Financial Returns}*

*OI1 (Organizational Intelligence component 1) = f {Organizational Value Orientation Index}*

*OI2 (Organizational Intelligence component 2) = f {Information and Knowledge Deployment Index}*

*OI3 (Organizational Intelligence component 3) = f {Infrastructural Standards Index}*

*OI4 (Organizational Intelligence component 4) = f {Systems Effectiveness Index}*

The relationships is given by the Model,

$$\begin{aligned} \text{Financial Performance (Organizational Performance)} &= 0.644 + 0.444 \times \\ &\text{Organizational Value Orientation Index} - 0.171 \times \text{Information and Knowledge} \\ &\text{Deployment Index} + 0.259 \times \text{Infrastructural Standards Index} + 0.188 \times \text{Systems} \\ &\text{Effectiveness Index} + \xi \quad \text{where, } \xi \text{ - Error Term \& } \alpha \text{ - Constant term} \end{aligned}$$

---Equation 7.1

This Equation indicates that Financial Performance is positively affected by the orientation of the organization towards values. These values are based on business realities and different capabilities such as, Ability to have awareness on stakeholder needs, Ability to encourage innovation, Capacity to utilize performance management systems effectively, having improvement on cycle time of operating systems, having high business process efficiency, and having highly efficient quality management systems. Focusing on the development of capabilities to track and meet stakeholders' needs, encouraging innovation, designing and using performance management systems, improving cycle time of operations, will increase the financial performance and thereby organizational performance of small and medium enterprises. Having high quality work systems and efficient processes are two important areas to orient the organization towards better business value which increases financial performance.

Standardizing infrastructure includes the abilities such as, Ability to provide schemes on employee welfare and the Capacity to use information effectively, enables the organization to get the best from employees as well as information for the betterment of financial returns and therefore organizational performance. Similarly systems effectiveness indicates abilities such as, Ability to incorporate societal sensitiveness in the system, Ability to focus on high level of stakeholder satisfaction, and Capacity to have effective workflow systems affect financial performance positively. Having sensitivity towards the societal changes, business environmental changes, ion towards adapting oneself with and sensing the impact of product and services on the society around the organization will



orient organizations towards adapting to the changes and contribute better to the society and in turn gaining competitive advantage. Having effective workflow systems and managing them effectively also contributes to financial performance of the organization as indicated by the equation above.

However, the information and knowledge deployment index would affect financial performances negatively. This indicates that the business owners do not believe that having stable information technology networks, interest in planning for business continuity at crisis and calculating the trade off between stakeholder needs and organizational goals would enhance financial performance. This might be because of the large investments that go into information infrastructure investment which is seen as an expense and most of the organizations do not get enough financial returns by investing in information technology networks and ERP (Enterprise Resource Planning) systems. Crisis planning and business Continuity plans are not made in most of the small and medium businesses as these organizations do not see business continuity crisis as a serious issue. They change business operations whenever required to obtain optimal financial returns except investing in insurance policies when dealing with business such as logistic services. This is revealed from a discussion with the respondents on the results of this research. (The results are capabilities and performances and the quotient of intelligence of their organizations).

The trade off between Organizational Goals and Stakeholder needs is not perceived to be substantial as in most of the small and medium businesses managed by family members. This index Information and Knowledge Management Index might turn out to be positive with large corporations where these aspects play key roles in deciding financial returns and stock market conditions unlike small and medium businesses considered for this research work. Thus this theory proposed here is verifiable against data collected from very large profit making public sector enterprises. In the same way, this index could be negative for entrepreneurial organizations where these variables constructing this factor are not very important, and thus small and medium business owners and entrepreneurs can focus on the capabilities that positively

affect the firm performance. Having high information and knowledge deployment index might drastically affect financial performance.

The same result would differ if non-financial performances are taken into account for this research work for these organizations.

## 7.4 Interpretations from Other Capabilities

A Score-Card can be developed from the behavior of dummy variables captured in this research study (Table 7.1).

**Table 7.1 - Capability Score Card**

<i>Item</i>	<i>Capability</i>	<i>Presence of capability in Organizations (Approximate)</i>
1	Strategic planning efficiency	60%
2	Ability to build and manage knowledge assets	60%
3	Capacity to manage customer expectations	50%
4	Ability to have decentralized decision making systems	80%
5	Having effective career planning systems	80%
6	Having strategic cost management in business processes	80%
7	Having variability reduction in business processes	80%
8	Having high process performance	85%
9	Having standardized quality metrics for production / delivery processes	60%
10	Presence of quality metrics along the value chain	70%
11	Continuous monitoring of quality	70%
12	Business valuation Practices	80%

These fundamentally are diverse capabilities of the organizations. Interestingly, these small and medium business organizations have interest in studying process performance, strategic planning, and empowering employees for decentralized decision-making. They have the ability to build and manage knowledge assets. More than 70% of the organizations display these capabilities. Their wakefulness of these aptitudes indicates a scope to develop them in the Small and Medium Business sector.

## 7.5 Predictions of OIQ (Organizational Intelligence Quotient) Instrumentation Model

This research study enabled us to understand important capabilities of small and medium Enterprises in Indian rural and urban sectors which are interested in identifying their intelligence and improving their capabilities to attain competitive advantage. The indices such as organizational wisdom and organizational value orientation point out the desire in these organizations to grow and apply their learning for more optimal performance. Indices such as organizational competitiveness designate clearly that these organizations are interested in endowing themselves to address competition effectively.

These organizations look at themselves to develop better self-awareness and consciously improve upon their systems effectiveness and process efficiency. Using infrastructure to deploy tacit and explicit knowledge effectively is distinguished by these organizations as a key factor for increasing their Organizational Intelligence Quotient.

Organizational Performance Equation given by 7.1. This equation establishes the relationship between some of the components of organizational intelligence with that of financial performance. Financial performance is an accepted form of measuring Organizational Performance and hence, this linkage helps us focus on improvising key indices to improve organizational performance.

Thus Organizational Intelligence Quotient can be calculated as a function of the indices given above. This quotient improvement will directly enable organizations to become aware of their strengths and weaknesses.

Thus OIQ (*Organizational Intelligence Quotient*) can be defined as,

$$OIQ = f\{\text{Organizational Value Orientation Index, Maturity Index, Organizational Competitiveness Index, Organizational Wisdom Index, Information and Knowledge Deployment Index, Infrastructural Standards Index, Systems Effectiveness Index, process Efficiency Index, Proficiency in Planning Index, Proficiency in execution index}\}$$

---- Equation 7.2

Considering the population of small and medium businesses in India, it is evident that many of the businesses have those 26 capabilities together constructing 10 different indices on which OIQ is depending on; however these capabilities are present at different percentages.

Considering the samples taken for this study, it is possible to rank the factors based on the number of variables that get grouped into each of these variables that represent different capabilities.

Equation 7.2 can be re-written as a linear equation as below.

$$OIQ = \alpha_1 \times \text{Organizational Value Orientation Index} + \alpha_2 \times \text{Maturity Index} + \alpha_3 \times \text{Organizational Competitiveness Index} + \alpha_4 \times \text{Organizational Wisdom Index} + \alpha_5 \times \text{Information and Knowledge Deployment Index} + \alpha_6 \times \text{Infrastructural Standards Index} + \alpha_7 \times \text{Systems Effectiveness Index} + \alpha_8 \times \text{Process Efficiency Index} + \alpha_9 \times \text{Proficiency in Planning Index} + \alpha_{10} \times \text{Proficiency in Execution Index}$$

-----Equation 7.3

Where,  $\alpha_1, \alpha_2, \alpha_3, \dots, \alpha_{10}$  represent the weightages of these factors.

$\alpha_1$  represents six variables that construct the factor Organizational Value Orientation Index from the total of 26 variables.

Thus  $\alpha_1$  is calculated as,  $\alpha_1 = (6/26) \times 100 = 23.07 \%$ ;

Similarly other coefficients  $\alpha_2, \alpha_3, \dots, \alpha_{10}$  are calculated as,

$\alpha_2 = (2/26) \times 100 = 7.69 \%$ ;  $\alpha_3 = (2/26) \times 100 = 7.69 \%$ ;  $\alpha_4 = (3/26) \times 100 = 11.53 \%$ ;

$\alpha_5 = (3/26) \times 100 = 11.53 \%$ ;  $\alpha_6 = (2/26) \times 100 = 7.69 \%$ ;  $\alpha_7 = (3/26) \times 100 = 11.53 \%$ ;

$\alpha_8 = (3/26) \times 100 = 11.53 \%$ ;  $\alpha_9 = (1/26) \times 100 = 3.84 \%$ ;  $\alpha_{10} = (1/26) \times 100 = 3.84 \%$ ;

Substituting these coefficients in Equation 7.3, we get,

$$\begin{aligned} \text{OIQ} = & 23.07 \times \text{Organizational Value Orientation Index} + 7.69 \times \text{Maturity Index} \\ & + 7.69 \times \text{Organizational Competitiveness Index} + 11.53 \times \text{Organizational} \\ & \text{Wisdom Index} + 11.53 \times \text{Information and Knowledge Deployment Index} + 7.69 \\ & \times \text{Infrastructural Standards Index} + 11.53 \times \text{Systems Effectiveness Index} + \\ & 11.53 \times \text{Process Efficiency Index} + 3.84 \times \text{Proficiency in Planning Index} + 3.84 \times \\ & \text{Proficiency in Execution Index} \end{aligned} \quad \text{-----Equation 7.4}$$

Equation 7.4 represents the mathematical definition of OIQ. This instrument measures the Intelligence quotient of organizations that fall in the category of small and medium businesses.

Comparing Equations 7.4 and 7.1, it is to be noted that an Organization might score high in quotient of organizational intelligence (OIQ) due to the scoring from information and knowledge deployment index. This large score of Information and Knowledge deployment index negatively affects Financial Performance as per Equation 7.1 for small and medium businesses. Thus focusing and investing on all other indices more will enhance OIQ scores as well performance for small and medium enterprises.

These results were communicated to the respondents and the experts and leaders from large corporations who took part in focus group discussion at various stages of research work. This outcome was agreeable to the way they see the financial and organizational performances in their organization. However the theory proposed should be validated with new set of samples from small and medium

businesses. New set of samples such as large corporations and entrepreneurs of own small businesses can be studied and compared to confirm the predictions discussed here.

## 7.6 Interpretations and Applications of OIQIM (Organizational Intelligence Quotient Instrumentation Model)

It is evident from the above equations that some of the indices are more important than others considering the population of study and perceptions on variables. Thus prioritizing and altering the weightages will enable one to apply the scale developed with better precision. There are indices with equal weightages. According to the nature of the organization the priority can be allotted.

For an Instance, Amongst indices, maturity index and organizational competitiveness index (7.69% of alpha coefficient), the priority may be given to organizational competitiveness index. For some organizations, Intelligence of organizations is more triggered by competitiveness than the maturity of the leaders, where in for some other organizations such as it is the reverse. Compared to Infrastructure Standards Index, Maturity of the business leaders is valued higher in family managed businesses. Thus the ranking amongst these three indices can be, 9.0 for Organizational Competitiveness Index, 8.0 for Maturity Index and 6.07 for Infrastructural Standards Index.

In the same way, Indices having alpha coefficient 11.53% can be prioritized. Amongst Organizational Wisdom, Information and Knowledge Management, System Effectiveness and Process Efficiency Indices, The priorities can be set highest for Organizational wisdom Index followed by Information and Knowledge Management Index. Process Efficiency Index can get lower Priority compared to System Effectiveness Index in family managed businesses. Organizational wisdom and tacit knowledge deployment from older stake

holders of businesses take higher priority compared to systems effectiveness and process efficiency in these organizations.

Therefore the weightages can be re - distributed as, 14.0 for Organizational Wisdom Index, 12.0 for Information and Knowledge Deployment Index, 11.0 for System Effectiveness Index and 9.12 for Process Efficiency Index. Similarly amongst other two Indices Proficiency of execution can get higher ranking than Proficiency of Planning as we found, most of the successful small and medium businesses from the samples believe in proficiency in execution being more important in planning. Thus 5.0 can be the weightage for Proficiency in execution index and 2.68 to proficiency in planning index.

Thus the Equation 7.4 changes to be,

$$\text{OIQ} = 23.07 \times \text{Organizational Value Orientation Index} + 8.0 \times \text{Maturity Index} + 9.0 \times \text{Organizational Competitiveness Index} + 14.0 \times \text{Organizational Wisdom Index} + 12.0 \times \text{Information and Knowledge Deployment Index} + 6.07 \times \text{Infrastructural Standards Index} + 11.0 \times \text{Systems Effectiveness Index} + 9.12 \times \text{Process Efficiency Index} + 2.68 \times \text{Proficiency in Planning Index} + 5.0 \times \text{Proficiency in Execution Index}$$

-----Equation 7.5

This kind of subjective distribution of weightages will depend on the type of business organization for which OIQ is measured. This distribution will be different for different types business depending on the size and nature. Also the choice of the variables that is predominant in an organization can enable the distribution of the weightages amongst the indices.

A dynamic business strategy involves planning on internal competency and utilization of wisdom of the organizations in the long run to perform better. Improvising factors such as organizational value orientation, raising infrastructural standards, maintaining stable systems lead to more finished performances as indicated in this research. Higher the OIQ, greater the competitive advantage of the firm as the indices constructing OIQ are the capabilities required by the organization to be competitive. Business owners and

entrepreneurs can identify these capabilities and devise strategies focused on fine tuning the respective factors.

## 7.7 Comparison of OIQ Instrumentation Model with the Models from Literature

Most models given in literature revolve around measuring OI with one or two variables such as, Environmental Scanning Model based on the ability of the organization to scan the business environment, Creative and Innovative Model of OI based on the ability to innovate and create new products and processes, Intellectual Capital Model of OI based on the total Intellectual Capital of the organization, and Information Managing Model of OI based on the ability to manage information effectively.

Smart Organizations Model is based on the Ability of the Organization to achieve goals through 9 different skills such as, Value Creation Culture , Creating Alternatives , Continual Learning, Embracing Uncertainty, Outside-In Strategic Perspective, Systems Thinking, Disciplined Decision Making, Alignment and Empowerment and Open Information Flow which are completely based on the softer cognitive and cultural aspects of the organization.

Action based model of OI measures OI as an ability to mobilize its brain power to achieve goals. Strategic vision, appetite for change, alignment and congruence, performance pressure, knowledge deployment, heart, and shared fate are the variables that represent OI This scale measures heart felt approaches, fate sharing qualities on emotional perceptions. Decision based Model of OI calculates OI through the Decisions taken in Organization, Learnings in Organization, Risk Taking in Organization and The Giving and Taking of Advice amongst employees in organization alone. Information Utilization model of OI measures OI as an ability of an organization to use information effectively.



Neural Network Cognitive Learning Model of OI intuitively explains OI as an innate cognitive ability to learn from the experiences. Combined Human and System Model of OI says, integrating human intelligence with interdependent system intelligences can improve performance of organizations. It speaks of the collective human and system intelligences alone at a cognitive level. Learning abilities Model is completely based on cognitive learning abilities and Organizational Design and Structure.

Organizational Capabilities based models such as Tata Business Excellence Model and Malcolm Baldrige Model are practically used by large organizations for business performance achievements. William Halal's Model of OI measures OI as a cognitive ability to create and use knowledge for strategic adaptation to the environment. In this Model OI is measured through five aspects; Organizational Information Technology Systems, Stakeholder Relations, Knowledge Management, Strategic Processes and Leadership. Innovation Capabilities model of OI defines OI as innovation performance.

Karl Albrecht Model of OI defines OI as the capacity of an enterprise to mobilize all of its brainpower, and to focus that brainpower on accomplishing its mission. It is measured with softer aspects such as Strategic Vision, Shared Fate, Appetite for Change, Heart (or spirit), Alignment & Congruence (the structure, systems, and rules), Knowledge Deployment, and Performance Pressure.

Cross Cultural Model of OI is oriented towards organizational structure, knowledge and communication largely. OL-OI Linkage Model (Ivana Simic, 2005)<sup>355</sup> depicts Organizational Learning (OL) as a component of Organizational Intelligence (OI). Human Organization Memory Model of OI defines OI is an organization's capability to process, interpret, encode, manipulate, and access information in a purposeful, goal-directed manner, so it can increase its adaptive

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355 Ivana simic, (2005), "Organizational Learning as a Component of Organizational Intelligence", Information and Marketing Aspects of the economically Development of the Balkan Countries, University of National and World Economy, Sofia, Bulgaria, p(189-196); <http://unwe.acad.bg/repec/sources/5c2005.pdf>

potential in the environment in which it operates; fundamentally based on information management abilities for decision making.

Complexity Model defines OI as the knowledge-based capacity inherent in the organization. This capacity forms the basis of success in the rapidly changing or highly competitive environment of the knowledge organization.

Most of all these models focus on only one or a fewer aspects of organizational capabilities to measure or define OI. Wherein, OIQ Model is a comprehensive model containing 26 different variables grouped under 8 factors and 2 unique variables for measuring OI in the form of quotient. This attempt is not seen the literature so far. Most of the models in the literature are not verified but intuitively proposed concepts. Our Model measures the intelligence quotient of Organizations based on business realities.

Models such as Tata Business Excellence Model and Malcolm Baldrige Model cover very large number of capabilities thereby having applications to very large enterprises such as Tata groups. This OIQ model is designed from the data collected from Small and Medium Enterprises largely making the model applicable to Small and Medium Enterprises in addition to larger corporations.

The variables used for the measurement of OIQ here are completely based on business reality with rationale on the information provided. These information can be obtained from many an organizations except for entrepreneurial set ups getting yet to develop their business processes and systems. Thus this OIQ scale designed here is comprehensive and has wider spread of applications and is a verifiable model as compared to other intuitive conceptual propositions made.

## 7.8 Issues and Probable Solutions of the Instrument Developed

This research involved a two pronged objective; one to develop a scale for measuring OIQ and the other to explore a linkage between OI and OP, so that the benefit of measuring OIQ can be established. The issues and the demerits of this work can be seen from two different angles. One is based on practicality and the other, perspectives.

### 7.8.1 Practicality Related

(i) *Data Collection related:* The key question is in sample selection and data collection. The study on OI and OP demands the respondents of the questionnaire to be business owners or chiefs of the organizations. Getting them to contemplate and answer questions on capability and organizational awareness related questions is time consuming and tedious. These questions demanded an audit on their awareness on business and organizations which have to be answered with thorough contemplation.

(ii) *Questionnaire related:* If we look at Appendix 1 and 2, it is apparent that many capabilities that can be captured for calculating OIQ are not considered due to the length of the questionnaire and the demand of the statistical methods of analysis for a larger number of data. There are many additional facets that could have been considered for this specific research. But since they might alter the findings and thus the interpretations in this study, they have not been measured.

(iii) *Validity of the Model related:* the model developed is not validated as collecting fresh data of sample size 100 or more to establish the consistency of results would span a time of two years or so. As the entire study is based on perspectives, the results might differ and we might have to repeat it a few times in order to realize reliability and accuracy. Thus this study would consume

another five years for repeating the research procedures for different set of samples. Accuracy of the model is not established, which itself is an interesting task for further study, keeping the variables unchanged.

(iv) *Trend related:* We have done a cross sectional study of the samples where data is collected at any given point of time. However intelligence related capabilities tend to change with time, technological breakthroughs, market dynamics, change of policies of trade and economical conditions. It would be preferable to measure OIQ (Organizational Intelligence Quotient) over a period of time and studying the trend of OIQ with time will enable us understand an organization better. This will enable a strategist to estimate the business outcomes and organizational performance in prospect and include it in strategic planning. The internal capabilities and competencies of the organization can be improved from the trend study.

## 7.8.2 Perspectives Related

(i) *Business Reality based:* Entire research was done with the perspective of finding OIQ based on business realities, created from organizational capabilities such as systems, processes, leadership, competition management, infrastructural and information utilization. These actualities have real data to be pondered on and they also answer the questionnaire. Though we can fully rely on this data, there are softer aspects such as culture, leadership styles, family issues and relationship dynamics between partners and stakeholders affecting the actual performances of business and organizations that are not considered in this research study.

(ii) *Non financial performance aspect of organizational Performance:* There are financial performances and non-financial performances that amount to organizational performance. We have considered only the perspectives of the respondents on their business performances, which is from business reality. The non-financial performance aspects can also be considered while studying the

relationship between factors driving OI and OP enabling better population benefit from this study.

(iii)**Precision:** The same model can be simulated using the questionnaire (Appendix 2) which has more than 150 questions (variables) which increases the sample size requirement by 5 times. If this limitation of data collection from 750 samples and other statistical limitations are overcome, the precision of the model can be improved. This research would consume another 5 years, however will be beneficial to small and medium businesses.

(iv)**Sample:** The same model can be simulated for different set of samples that are multinationals and corporate offices. There are many higher ranked organizations having business excellence models for self-introspection and development of capabilities. However their OIQ is not being calculated for any kinds of assessment. Long lived multinational organizations must measure OIQ for self assessment and improvement. Assessment of OIQ will help the business arena to identify high performing organizations not just by revenues alone but also by other parameters that can forecast and determine future trends of organizational sustainability against competition and future shocks.

## 7.9 Conclusions Derived from this Research Study

There are two distinct conclusions from this research work. One is, it confirms that Organizations are like human systems and they have intelligence. This intelligence can be measured in terms of Organizational Intelligence Quotient. The next is, Organizational Performance is affected by some of the capabilities that construct Organizational Intelligence. Thus Organizational Intelligence Quotient can be adjusted by improving the capabilities of the organization to increase performance. The results are applicable to the population of small and medium Business enterprises.

## 7.10 Specific Contributions to the Field of Management Research

There are few specific contributions to management research arena and business executives. This exploratory research work is based on the business reality as the questionnaire collects data based on business realities. There are also various angles with which Organizational Intelligence can be looked at and measured. There are future research opportunities for management research academia in section 7.9

Though there is a lot of research done on Organizational Intelligence, there is no relationship identified between Organizational Intelligence and Organizational Performance. This research proves that financial performance of the organizations can be improved by working on certain organizational Intelligence Indices. This fact can be used by organizations for improvising their capabilities. Such kinds of capabilities are being identified, measured and controlled by organizations such as Tata Groups in India. Research was done after piloting questionnaire and studying the opinions of some of the executives of such large corporations that this kind of work would help small and medium enterprises largely to identify their capabilities to attain advantage competitively.

The exhaustive literature survey is a collection of Organizational Learning, Organizational Intelligence and it differentiates both. There are plenty of variables found in various conceptual models are common and used in different contexts. They are identified and compared. The OL, OI literature collection is a concrete support to researchers in this area.

This research re-establishes that organizations are humanistic systems. They are proactive and reactive like that of human beings. That is, the fact that Organizational Learning triggers Organizational Intelligence is established from

the literature study directly by studying the exhaustive number of variables used by researchers to measure OL and OI.

## 7.11 Scope for Future Work

This research depended largely on the study of different capabilities of organizations that evolve from business realities exclusively. The direction of this study based on business realities is based on the publications of Professor William Halal of Harvard Business School on Organizational Intelligence. However the parameters for measuring the intelligence are picked up from the literature on Organizational Intelligence completely. The limited literature survey done for this research work with the help of just 250 references did not indicate the presence of a scale to measure OIQ. And thus the objective of this work is set to devise a scale to measure OIQ from the common perspective based on business realities to begin with.

The theory presented here can be verified with new set of samples from the same population over a period of time such as 5 years. The same study can be done for large enterprises and group of companies and entrepreneurial organizations and the results can be compared. The key benefit of this comparative study is to assess and enhance intelligence and performance which is the dire need of future organizations to compete.

OIQ can be studied with softer aspects of the organizations such as culture, leadership, interpersonal dynamics amongst stakeholders, client relationships and their relationships with business performance. OIQ can be studied as a function of Human Intelligence, Systems Intelligence and Process Intelligence Perspectives. This scope of research work would contribute to the softer and component of OIQ. A vector combination of the softer and harder aspects would complete the definition of OIQ.

OIQ can also be studied with the perspective of looking at organizations with human intelligence (HIQ - Human Intelligence Quotient), System Intelligence

(SIQ - System Intelligence Quotient) and Process Intelligence (PIQ - Process Intelligence Quotient), as we see these aspects of capabilities are being studied separately to improvise these aspects in the organization. Study and the assessment of these aspects might contribute to the financial as well non-financial performances of the organization. This aspect can be explored and compared with the theory of OI-OP Linkage proposed in this thesis.

OIQ can be studied with Intellectual Intelligence Quotient of organizations (IQ), Emotional Intelligence Quotient of organizations (EQ), and Spiritual Intelligence Quotient of organizations (SQ); where Intellectual Quotient would depend on Business Realities. Emotional Quotient can be calculated from the people - or stakeholder-centric abilities of the organizations. Spiritual Quotient could emanate from the social sensitivity and social responsibility of organizations. This would be a complete humanistic approach towards organically growing organizations. The resolved components of intellectual, emotional and spiritual aspects of OIQ can explain about organizations their dynamics and behavior with greater depth and more dimensions. This research calculates OIQ looking at the Intellectual Component from the data based on the business realities exclusively. The three dimensional study of this intellectual component along with emotional and spiritual components would open new avenues to look at organizations and build them stronger and beneficial to society.

## 7.12 Conclusion

In this chapter we have discussed the interpretations of results, model applications, specific contributions to researchers and business owners and executives are put forth. Recommendations for the future research work are listed. Conclusions from the research work are drawn. Potential issues and the possible solutions are mentioned.

From this work we found that Improvising OIQ yields value based growth of the organization, social responsiveness, competitive advantage and high



performance benefiting growing organizations with small and medium businesses. This work is applicable in measuring intelligence of business units of larger enterprises as well individually within very large enterprises to improvise capabilities to sustain their strategic competitive advantages.

This Research is an attempt to pave a way for exploring further on Organizational Intelligence with various new perspectives. These perspectives and research on such aspects of organizations would help business entities understand their organizations better and formulate strategies to improvise Organizational Intelligence Quotient and in turn financial business results. Raising such long lasting organizations would be one of the greatest contributions to society and country.

With this chapter, this thesis is concluded.