Development of the Theoretical Model
Development of the Theoretical Model:

Zeroing in on origins of OC: Ethics Resources in Organizations:

__Public Procurement__ comprises of all the outsourcing activities of the government in execution of works, all ranges of purchases of products or services and all manner of hiring of various services (adopted from Vigilance Manual of Central Vigilance Commission of India; http://cvc.nic.in/man04.pdf). This is quite similar to United Nations’ view of public procurement i.e., the overall process of acquiring goods, civil works and services which includes all functions from the identification of needs, selection and solicitation of sources, preparation and award of contract and all phases of contract administration through the end of services contract or the useful life of an asset (Thai, 2008).

Public Procurement is most prone to corruption (Soreide, 2002). Annual Procurement of Government in India in 2008 was estimated at Rs.500,000 Crores and expected to go up 12-15% every year (Financial Express, 2008). Almost every corruption scandal or scam highlighted in the media in India in the past few years, be it the Coal blocks allotment scam, the 3G Spectrum scam, the Cattle Fodder scam, the Defense procurements scams like the Bofors guns case etc., all involved a public procurement or sale, with a State owned Enterprise (like Bharat Sanchar Nigam Ltd or Coal India Ltd) or a Public Sector Organization (like Defense Ministry, Telecom Ministry etc) managing these assets smack in the middle of the muddle. There is a growing need for public procurement systems to be able to fight corruption and to improve the effectiveness, efficiency, fairness and transparency of public procurement (Tabish & Jha, 2011). This prompts us to look at existing models in the literature which have attempted to analyze measure or grade corruption in organizations.

Beeri et al (JBE, 2013) have studied the impact of adoption of an Ethics program on employees’ perceptions and behavior, using a framework as follows: They suggest three
Ethics Resources in organizations that are the origins for parameters that could be used to analyze or assess the organization’s preparedness against corruption: Awareness of the Ethics Code, presence and action of Ethical Leadership and Inclusion in Ethical decision making. These have been discussed in detail in the earlier pages under Literature Survey. These resources lead to the four organizational outcomes or indicators of Ethical Climate, Organizational Commitment, Organizational Citizenship Behavior and Quality of Work. If we study the highly sensitive organizational business activity of procurement (of products and/or services) with this framework, we can see that from these three Ethics Resources & Organizational Outcomes given above the following types of irregularities that occur in public procurements can be accounted for:

CHART-G: Ethics Resources from Beeri et al (2013)

<table>
<thead>
<tr>
<th>No.</th>
<th>Ethics Resources From Theory</th>
<th>What it means in our context: Physical infrastructure/systems or processes within the organization- Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Awareness of Code of Ethics</td>
<td>Availability &amp; wide publicity of codes, manuals, rules, procedures, delegation of powers, policies as well as legal provisions on this company from the environment.</td>
</tr>
<tr>
<td>2</td>
<td>Ethical Leadership</td>
<td>Presence of Ethical Oversight/Vigilance Officials, Availability of direction, Vision, Mission including/based on ethics, checks and balances like External Audit, Vigilance, Preventive Programs, training, periodic reviews/ oversight etc.</td>
</tr>
<tr>
<td>3</td>
<td>Ethical Decision making</td>
<td>Availability of proper &amp; transparent Accounting and Audit (Internal) Systems, modern IT based recording and transacting practices to ensure fairness and prudence, adequate and complete documentation to ensure Transparency of procedures.</td>
</tr>
</tbody>
</table>

(Based on Beeri et al, 2013)

Here we see that while the framework suggested by Beeri et al (2013) takes care of most of the commonly observed theoretical construct parameters behind irregularities in Public Procurements, the obvious omission is that of personal malfeasance or intentional procedure-violation and lack of accountability and responsibility on the individuals in the system. Beeri et al.’s ERs present the positive reinforcements to encourage ethical behavior; we need to look at the requirements of negative or deterrent aspects to prevent unethical behavior.
Sohail & Cavill (2008) have suggested accountability as one of the measures of detecting and countering corruption. Accountability and responsibility for an irregularity can be pinpointed if there is a procedure violation or process shortcutting or rule violation which may be of an intentional nature. Thus, the framework formed above can be modified as in CHART-H below to add this aspect which was missing earlier, as No.4 below.

**CHART-H : Ethics Resources (Continued)**

<table>
<thead>
<tr>
<th>No.</th>
<th>Ethics Resources</th>
<th>What it means in our context: Physical infrastructure/systems or processes within the organization- Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Awareness of Code of Ethics</td>
<td>Availability &amp; wide publicity of codes, manuals, rules, procedures, delegation of powers, policies as well as legal provisions on these company</td>
</tr>
<tr>
<td>2</td>
<td>Ethical Leadership</td>
<td>Availability of directions, Vision, Mission including ethics, checks and balances like Audit, External Vigilance, Preventive Programs, training whole periodic revision/ oversight etc.</td>
</tr>
<tr>
<td>3</td>
<td>Ethical Decision making</td>
<td>Availability of proper &amp; transparent Accounting and Audit (Internal) Systems, Transparency of procedures.</td>
</tr>
<tr>
<td>4</td>
<td>Responsibility for violation of procedures or professional standards</td>
<td>Systems for Individual Accountability fixing such as IT based recording practices, adequate and complete documentation at all levels.</td>
</tr>
</tbody>
</table>

(Based on Beeri *et al*, 2013 and Sohail & Cavill, 2008)

We then studied other Theoretical models that have attempted to analyze corruption. Jourdain & Balgobin (2003) proposed a four-factor framework for assessing corruption, which included Transparency, Economy, Efficiency and Fairness. If we compare each of these factors with the Ethics resources listed in CHART G the following will emerge: *Transparency* is already listed as related to the Ethical Decision making resource. *Economy* is one of the core principles of any utilization of public funds (by SOE’s or any other Public Sector Organizations) which are embodied in the Ethical Leadership resource, and under ‘prudence’ related under Transparency above. *Efficiency* is, for our purpose, very much related to Economy and this is also figuring under Ethical Leadership, and also one of the reasons behind the implementation of IT based systems and Auditing and Accounting is
Thai (2008) suggested a ‘Legal’ framework for assessing corruption in organizations. For our purpose, the awareness aspect behind the legal perspective is covered under the Awareness of Ethics Code – Resource which includes availability of Rules, Codes, and Manuals etc. within the organization as well as the legal provisions in the environment it functions in. The second part of the Legal perspective is the Deterrence aspect which points to the need for well laid out strong yet fair and transparent punishment or penal provisions for discouraging the unethical kind of risk taking and other violations with intent. This aspect therefore finds a fifth slot on the table CHART-I below as Deterrence against Intentional malfeasance.

Tabish and Jha (2011) have presented a five factor variable set to differentiate irregularities, which include Transparency Irregularities, Professional Standards Irregularities, Fairness Irregularities, Constant Monitoring and Regulation Irregularities and Procedural Irregularities for classifying the irregularities in purchases and procurements. It is pointed out that this framework can be seen to be embodied in the framework assembled in Table II. Transparency is already included as such in CHART-I. Professional Standards irregularities are fully covered under Accountability in CHART I. It can be argued that ‘Fairness’ (ensured through adequate publicity etc; (Tabish and Jha, 2011) is already embodied in Transparency (under EDM) and in Ethical Leadership. Contract Monitoring and Regulations Irregularities are falling in the ambit of Ethical leadership. Procedural Irregularities are also covered under Accountability.

Thus we see that from available theoretical models in this area of corruption analysis, the Framework in CHART I encompasses all hither-to observed theoretical constructs of
origins/causes resulting in Irregularities in Public Procurements. CHART-I tentatively finalizes this framework and related definitions.

**CHART-I: Ethics Resources: Definition and Meaning**

<table>
<thead>
<tr>
<th>No</th>
<th>Ethics Resource</th>
<th>Organizational indicators: link to vulnerability to corruption</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Availability and wide publicity of Ethics Codes, Manual etc.</td>
<td>Availability of and wide publicity of Codes, Manuals, Rules, Procedures, Delegation of Powers, Policies, Legal Provisions in the country etc.</td>
</tr>
<tr>
<td>2</td>
<td>Ethical Leadership &amp; Direction</td>
<td>Presence of Ethics or Oversight officers; Availability of (Ethics driven or based) Vision, Mission, Objectives, System Checks and balances, External Audit, Vigilance or Audit or Internal Affairs Department, Preventive Programmes, Ethics training, Whistle Blower provisions, Complaint/redressal mechanisms, regular reviews of ethical climate etc.</td>
</tr>
<tr>
<td>3</td>
<td>Ethical Decision making support systems</td>
<td>Availability of proper Accounting and Internal Audit mechanisms, Timely and accurate documentation systems, Modern IT based systems in all areas, High level of Transparency in processes &amp; procedures.</td>
</tr>
<tr>
<td>4</td>
<td>Individual Accountability for FA violation of professional standards or procedures</td>
<td>Individuals violate knowingly or unknowingly the procedures or rules so as to exploit lacunae or create a situation for generating personal benefit. Needs system for fixing responsibility for such violations.</td>
</tr>
<tr>
<td>5</td>
<td>Deterrence against Intentional malfeasance.</td>
<td>Intentional violation of process or procedure with Mens rea or Malfeasance involved in breach of rules: Points to systems for investigating, and punishing violators.</td>
</tr>
</tbody>
</table>

Thus, based on extant literature, we have attempted to create a theoretical framework for analyzing irregularities in Public procurements in State Owned Enterprises. These occurrences of these irregularities are prime pointers to the Corruption Risk Vulnerabilities of the organization. This study proposes that such a model can be used for assessing corruption (‘corruption risk vulnerability’ or ‘anti-corruption preparedness’) in State owned Enterprises as well as all kinds of Public Sector organizations. This assessment will also be useful or grading or ranking the SOE’s on a Organizational Corruption Index in somewhat similar manner as the Corruption Perception Index (CPI) of Transparency International, or the “O-CLEAR” factor suggested by Price Waterhouse Coopers, both used for assessing corruption perceptions about countries. The main difference and advantage of our model is
that while the CPI and O-CLEAR merely look at perceptions our Index will work out the vulnerability or level of preparedness, based on the actual nuts and bolts of the organization’s structure and processes.

**Consolidating the ERs: Semi-Structured Interviews**

Through extensive literature survey we have identified five Ethics Resources (ER) in organizations, which we saw, are factors, which by virtue of their weakening or distortion or absence, provide an atmosphere conducive to emergence and flourishing of unethical behavior, including organizational corruption (OC). The irregularities or violations that are highlighted in corruption cases observed and investigated in organizations by Regulatory Bodies are thus pointers to the weakening, absence, or lacunae in these ERs.

But before we started to look at irregularities brought out in corruption case investigations, it was deemed necessary to re-look at the theory-based ERs and ask the following questions: Are these all? Have we left out any key ERs which may be visible to practitioners? Are they all equally important? Do the weaknesses in some of the ERs cause more damage (corruption) than that in some other ERs? Literature does not seem to provide any more ERs or paradigms that could be considered similar. Literature also does not mention any relative importance between these five ERs. As discussed above, we have been able to categorize all the observed similar factors (ERs) observed in literature into one or other of the already identified ERs.

When this Thesis was presented in the Seminar on 22nd January 2016, the following comment was received from the audience: *You have identified these five Ethics Resources. What might have been the competing paradigms where you could have distributed those 102 items? What might have been alternative paradigms, why did you not look for others?*
Perhaps it may be mentioned in your thesis. Discuss this aspect more thoroughly and bring that out clearly in the presentation.

This suggestion is welcomed and necessary enhancements have been made in this Thesis.

As already discussed, the conceptual theme of Ethics Resources was first encountered in Beeri et al (2013), who have suggested three ERs. It was while analyzing Beeri et al (2013) that we decided to try and link the theoretical concepts of ERs with actual corruption cases data. We then researched the literature for further paradigms that could be added to the list of three ERs, and came across four more papers - Sohail & Cavill (2008), Thai (2008), Jourdain and Balgoobin, (2003) and Tabish and Jha (2011). The detailed discussion on these papers is given in the previous pages. The paradigms presented in the other four papers are seen to be closely similar to Beeri et al (2013) as well as complementing Beeri et al (2013) in explaining the physical occurrence of irregularities or procedural/rule violations as observed by the regulatory body as a result of shortfalls in or absence of one or other ERs in the organization. Other than Beeri et al (2013) the other four authors have not referred to their paradigms as ‘Ethics Resources’. However, since we found that the concepts explain well the linkage between the theoretical concepts with the physical data of violations, we have decided to list these five paradigms as ERs, for the purpose of this work. We have been unable to see any further paradigms in literature that could be added to this list of five.

To further widen our search, we cross checked the existing Practitioners’ Indices to confirm that there are no more “ethics resources/outcomes” to be identified. We covered the conceptual frameworks behind CP Index of Transparency International, the CI, CCI of World Bank, the O-CLEAR Index of PwC, the International Crime Victims Survey (Europe) etc. The Corruption Perceptions Index of TI does not appear to have any theoretical conceptual
framework. It works on periodic assessment of perceptions of corruption levels through questionnaires addressed to specific groups of persons and collating these perceptions into an Index value recorded at Country levels. The Control of Corruption Indicator is an index combining up to 22 different assessments and surveys, depending on availability, each of which receives a different weight, depending on its estimated precision and country coverage. The CCI draws on data, as applicable, from the Country Policy and Institutional Assessments of the World Bank, the Asian Development Bank and the African Development Bank, the Afro-barometer Survey, the World Bank’s Business Environment and Enterprise Performance Survey etc. It also does not appear to have any basis on theoretical research or conceptual framework. The Opacity index suggested by Price Waterhouse Cooper is based on an O-CLEAR factor, an acronym which is explained by the five factors- Corruption in government bureaucracy- Legal Situation in the country particularly the laws governing contracts and property rights - Economic policies of the Government, monetary, fiscal and tax related – Accounting standards position and Regulations in the business environment (PwC 2001). Their surveys are addressed to knowledgeable people working at various levels in the country and outside, for forming their perception based model. As mentioned earlier, all these practitioner’s tools are ‘perception’-based, mostly aimed at assessing the ‘ease of doing business’ aspect of the country’s economy and their frameworks do not seem to be based on theoretical concepts such as Ethics Resources or similar paradigms. Thus we could not detect any additional paradigms similar to ERs in literature, or in analyses of existing Corruption measuring Indices.

We therefore decided to approach Practitioners and Experts in the area of Ethical oversight and Vigilance as to whether they can think of or suggest any factor or paradigm we have not identified as an ER; and what relative importance they attach to each ERs, inter se.

---

Since we were planning to approach practitioner/experts with no familiarity with the theoretical concepts of ethics Resources or Theories behind corruption, there was a need to briefly educate and familiarize the respondents about the theoretical concepts before they are questioned based on their practical experience. A format of the questions to be used in the semi-structured interviews is given in ANNEXURE I. For doing this in a scientific and systematic manner, it was necessary to ask the same questions to each respondent, with small supplementary questions to each if the need arose. Therefore we decided to go for semi-structured interviews as a qualitative tool for gathering this information, which is of a descriptive, non-numeric nature.

The population we decided to approach is the community of Chief Vigilance Officers, who are the Oversight Officers in SOE’s in India. The officials are normally persons from outside the organization, posted to the concerned organizations through rigorous screening process by the Central Government in consultation with the Central Vigilance commission. They are controlled by the CVC and the Secretary of the concerned ministry under whose control the SOE functions. They are normally appointed to the organization for three-to-five year tenure, after which they have to return to their parent organizations or services. They can neither seek absorption into this SOE on completion of their tenure, nor accept gifts/favors etc. from the organization over which they have the ethical oversight. They are trained in matters of vigilance, investigation of corruption cases and given sufficient infrastructural support to carry out their functions. They are ranked at the level of Directors to the Board of the Company/SOE and are permanent invitees to the Audit Committee of the Boards. Being from outside the organization gives these officers the neutrality and impartiality to function without fear or favor. Besides expertise through training and hands on experience, they also gather a depth of insight and information on the domain through official and unofficial associations and groupings such as Vigilance Study Circles etc. which
discuss and share the corruption related information for the benefit of the community and the
SOEs as a whole. As of January, 2015, there were posts of CVOs in some 220 SOEs in India
under the Central Government including 32 Public Sector Banks, 8 Public sector Insurance
Companies, and other Government run institutions. This excludes the Departments of the
Government Ministries, where no separate CVOs are posted, and their duties are looked after
by an officer at Joint Secretary Level as an additional charge. Out of these 220 SOEs, some
170 had incumbents posted against them as of January 2015\textsuperscript{11}.

Regarding the number of persons to be interviewed, we considered about 10 persons
as adequate, because the basic questions were only to identify if any other Ethics Resource
could be at work in OC cases, other than what we had already identified from theory. Since
these officers are very senior and busy individuals, and, by the very nature of their duties
rather reticent about sensitive topics, it was initially rather difficult to get appointments for
interviews on the subject of corruption in their respective organizations. However, since the
subject is of a more academic nature rather than practitioner data, we managed to persuade
and interview 13 officers in the field including 10 CVOs and three Deputy CVOs from
organizations scattered in different locations in India and belonging to sectors as varied as
Fertilizers, Shipping, Mining, Banking and Electronics. The list of Interviewees and the
interview schedule is included in Annexure I and the semi-structured interview questionnaire
cum briefing note is added as Annexure II.

The interviewees were first briefed about the concept of Ethics Resources
(Availability and wide publicity of manuals, ethics codes etc., Ethical Leadership,
Participation of employees in Ethical Decision-Making, Accountability/responsibility and
Deterrence) in organizations and how they are related to corruption. They were asked to rank

\textsuperscript{11} From http://www.cvc.nic.in/ accessed on 21-01-2015.
the five ERs with regard to their relative importance or gravity in their minds. Then they were asked to suggest if there are any other possible factors in organizations which could be considered as an ER. The interviews were recorded on audio recording devices, and subsequently the conversations typed out from the recordings and transcripts made.

Most of the interviewees attributed importance first to deterrence, then responsibility/accountability, then ethical leadership, availability of ethical codes and finally participation in ethical decision making, in that order, though all of them stated that all the five have more or less equal significance. The relatively higher importance given to deterrence and accountability could perhaps be attributed to the fact that they were all practitioners in Vigilance and control of corruption. Now, as regards the second question-whether any other ER could be pointed out, though several suggestions came, all of them could be slotted under one or other of the already identified ERs. Examples were “strict screening for ethical reliability at the time of appointment”, “severe punishments for those found guilty”, “presence of systems like ERP/SAP”, “extensive use of public portals for tendering, regular updating of ongoing purchase process highlights on websites etc.”, which were easily (already) included under our ERs Ethical Leadership, Deterrence, Accountability/Responsibility, etc. Thus, from the semi-structured interviews with the experts, we were not able to identify or suggest any additional paradigms similar to the five ERs we had identified from literature.

Data Analysis

CVC’s Data on Irregularities observed in corruption cases and CVC Circulars/Guidelines

Since irregularities observed in public procurement by SOE’s are the backdrop for testing the proposed theoretical framework, the first step was to collect exhaustive data list of
the irregularities observed in corruption cases from an authoritative source. The Central Vigilance Commission of India was set up by the Government of India by the Parliament Act of 2003, as an autonomous body to advise and guide Central Government Agencies (like Departments, SOE’s (called Central Public Sector Enterprises/CPSEs or Central Public Sector Undertakings/CPSU’s) and other Governmental bodies, to tackle the issue of corruption in the Indian Central Government domain. CVC is authorized to investigate complaints of corruption involving Civil Servants or SOE’s Senior Officers, give clearance for high level postings in various bodies and exercises superintendence in corruption related matters over the Central Bureau of Investigation (CBI). The CVC encompasses within it the Chief Technical Examiner’s Organization (CTEO) whose duty is to examine the public procurements and works carried out by various Central Government agencies and study whether these transactions confirm to the law of the land, the codes and manuals applicable, justice and fairness in dealings and basic principles of financial prudence. The CTEO has published the commonly observed irregularities in corruption investigation cases in procurements on the website www.cvc.nic.in and also published details of some of the individual corruption cases involving various irregularities. One such report was accessed on 23-08-2014 which pertains to several years’ data collected by CVC/CTE Organization. The CTEO has categorized (stage-wise) the irregularities as: Pre-tender state – involving project formulation, appointment of consultants, preparation of detailed project report/detailed estimate; the tender stage consisting of prequalification, preparation of tender documents, inviting and opening of tenders, tender evaluation and award of work; and execution stage consisting of compliance of agreement conditions, making payments, ensuring quality and timely completion.

The collated data provided by CTEO on the CVC website is in descriptive form under various heads (stages of procurement process), eighteen in number. These irregularities, (or
violations of rules, systems and procedures, which resulted in corruption cases) as presented by CTEO, amount to 132 in number and have been listed and given in Annexure III-A. Since it was observed that there are several repetitions with the same irregularity occurring at different stages, (e.g., common observations between Bank Guarantees and Performance Bank Guarantees, between ‘sketchy description’ of requirements by user department at initial stage and similarly sketchy description in tender advertisements; similar comments about unfair practices for eliminating competition at the stages of advertising tenders, opening tenders etc.; and use of public portals and websites at various stages; and so on), it was considered necessary to ‘clean’ this data so as to present the individual irregularities as clearly and independently as possible.

For this purpose we took the help of three independent experts in the area of Vigilance and Oversight working in SOEs who were somewhat conversant with requirements of academic rigor. Working independently first and thereafter in one joint discussion these experts have produced a final list of 92 ‘cleaned and condensed’ irregularities, which are given in Annexure IV as the first 92 Items in the list, with the names and contact details of these individuals also provided along with the data.

As mentioned earlier, along with the irregularities pointed out by CVC, there are also certain orders and guidelines brought out by CVC from time to time, for prevention of these very irregularities in public procurements\(^\text{12}\). Once an order is issued by CVC for implementation it has the force of any Manual or Code and makes it mandatory to be followed. (Examples are “No negotiations with any tenderer other than the lowest tenderer”; “Mandatory to publish all tenders above a certain amount in at least three National Dailies”; “Preference to be given to public sector companies who produce the required items”, etc.).

\(^\text{12}\) All these circulars and orders are permanently available on the CVC website www.cvc.nic.in.
Violations of these kinds of orders are likely to be treated as corruption incidents and investigated. However, in case of ‘guidelines’ brought out by CVC, they are more in the tone and tenor of suggested best practices and are not mandatory to be followed. These include guidelines regarding Integrity Pact; Whistle Blower Policy, switching to 100% e-payments and receipts, switching to e-tendering etc. The practice generally followed is that initially CVC issues guidelines, giving time to all organizations to switch to the new schemes and spread them throughout the organizations; thereafter CVC issues an order making the practice mandatory with a deadline for implementation.

So our next step was to go through all recent (from 2003, the year of the CVC Act, when this Regulatory Body came into formal existence) circulars brought out by CVC and identify all the current ones dealing with regulating of public procurements. As discussed above, these guidelines are not yet mandatory and the organizations have the option and the time to implement them. Ten such CVC guidelines were added to our database along with the list of irregularities. The logic behind their inclusion is: The occurrence of irregularities, as discussed earlier, is a sign of the ‘weakening’ or distortion in a corresponding ER, showing a greater vulnerability to corruption, whereas, the implementation of what is only a best practice suggestion shows the organization’s readiness to ‘strengthen’ the corresponding ER, which reduces the vulnerability to corruption. Ten such circulars showing CVC guidelines were identified from the CVC website and included as Annexure III-B. This work was also done with the assistance of the three Independent experts who participated in the ‘cleaning’ of the data as mentioned above.

Thus we have a final list of 102 (92+10) items (Annexure IV ) which by virtue of their occurrence tend to weaken the corresponding ER and increase the corruption vulnerability of the organization (irregularities) or vice versa (CVC guidelines).
Linking Irregularities to Ethics Resources

This data was then analyzed as follows: First each of the items in the Annexure III-C was scrutinized and slotted according to whether irregularity resulted due to the absence or violation or weakening of which of the ERs from CHART H as described through their Organizational indicators; viz. Availability and awareness of Codes/Rules etc.; Availability of Ethical Leadership factors like checks & balances; Ethical Decision Making indicators (like accounting documentation and internal audit); Transparency enhancing systems (like ERP); Accountability/Responsibility and Deterrence against the possibility of malfeasance or intentional violation of rules and procedures. In order to do this linking in a neutral manner, the work of linking the 102 items in Annexure III D into the five ‘buckets’ of ERs was also entrusted to the three experts described in relation to the cleaning of data. The sorting sheet is given in ANNEXURE III- C. The final list of the 102 items after this linking process is given in Annexure IV. After this analysis we see that the 102 items fall into the five buckets as below:

CHART-J: ERs linked to Observed Data

<table>
<thead>
<tr>
<th>No</th>
<th>Ethical Resource</th>
<th>Number of items linked</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Availability and wide publicity of Ethics Codes, Manual etc.</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Ethical Leadership &amp; Direction</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Ethical Decision Making support systems</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Individual Accountability for violation of professional standards or procedures</td>
<td>36</td>
</tr>
<tr>
<td>5</td>
<td>Deterrence/Control against Intentional malfeasance.</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>102</strong></td>
</tr>
</tbody>
</table>

When this Thesis was presented in the Seminar on January 22\textsuperscript{nd}, the following comment was received from the audience. See if you can strengthen the reliability of the distribution of your final list of 102 items into the 5 buckets of the Ethics Resources using factor analysis or some such method?
This suggestion is welcomed and we have closely scrutinized this relationship and this distribution process which was actually carried out by experts to see how best the validity can be assessed. We would like to point out that this was not a conventional scale-development exercise using reflective indicators for conventional procedures of testing reliability and validity to be applied (see (Diamantopoulos, 2001; and detailed discussions on this later on in the paper in the Index construction chapter); this being just the first step in an Index construction exercise using formative indicators. This particular linking of 5 ERs with the 102 Items both of which sets are names or nomenclatures of certain abstract paradigms and violations, and the actual linking carried out by domain experts. Conventional checks of validity like factor analysis may not be applicable in this linkage. This is, however, a very interesting line of enquiry for continued research, and we recommend further academic scrutiny along this direction.

**Conceptual Model**

Thus we are able to see that the five Ethics Sources (Ethical Codes, Ethical Leadership, Ethical Decision making and Accountability and Deterrence), their organizational indications and their absence or abuse or misuse, can lead to the outcomes or vulnerabilities which are manifested as irregularities in corruption cases.

The data collected and published by CTE of the CVC of India indicate the following:

a) 11.8% of the irregularities are on account of the vulnerabilities like the absence or obsolescence or inadequacies in the ethical codes, manuals, and legal systems etc which are to be provided by the senior management in the organization and related to the Ethics Resource of *Presence of Ethics codes.*
b) 9.8% of the irregularities are on account of vulnerabilities in the checks and balances, oversight systems, training etc. related to the Ethical Leadership resource which can prevent these irregularities by implementing the guidelines as suggested by CVC.

c) 35.2% of the irregularities are out of system vulnerabilities avoiding fixing of individual responsibility for procedural violations and unethical behavior, related to the Accountability Resource.

d) 8.8% of the irregularities are due to vulnerabilities in the Accounting, Documentation and Auditing systems, and the poor Transparency of the processes and systems in use related to Ethical Decision making resource.

e) 34.4% of the irregularities are due to lack of (or weak) Deterrence ensuring systems which are also related to the Deterrence resource.

Compiling these results into a final framework we arrive at a tentative conceptual model as shown below in CHART K.

**CHART-K: Conceptual Model Linking Irregularities (Lapses) to Ethical Sources**

<table>
<thead>
<tr>
<th>Ethics Resources</th>
<th>Organizational Indicators</th>
<th>Observed Irregularities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethics Codes (Rules, Manuals, Awareness)</td>
<td>Provision and propagation of Ethics Codes, manuals, rules, procedures etc.</td>
<td>Vulnerabilities based on inadequacies in Organizational Ethics Codes, rules, manuals and their awareness (or their absence)</td>
</tr>
<tr>
<td>Deterrence (against Intentional violations)</td>
<td>Irregularities on account of intentional violations or malfeasant, unethical behavior</td>
<td>Vulnerabilities permitting International Procedure Violations, Malfeasances, Unethical conduct</td>
</tr>
<tr>
<td>Ethical Decision making</td>
<td>Lapses on account of poor Accounting/Documentation/Audit</td>
<td>Vulnerabilities due to inadequate or improper Accounting, Documentation, Auditing Systems</td>
</tr>
<tr>
<td>Ethical Leadership (Checks and balances /oversight)</td>
<td>Lapses due to inadequate checks &amp; balances, oversight etc.</td>
<td>Vulnerabilities on account of inadequate or improper Checks and balances, awareness, training, oversight and mechanisms to ensure, fairness, justice and prudence.</td>
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<tr>
<td>Accountability/Responsibility</td>
<td>Lapses where there is no responsibility on individuals and preventable through better usage of IT based systems &amp; more transparency in procedures and systems</td>
<td>Vulnerabilities that can be reduced or eliminated by use of suitable modern IT based systems, processes &amp; tools</td>
</tr>
</tbody>
</table>