Organizational Citizenship Performance in Non-Governmental Organizations
Development of a Scale

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Abstract

Past two decades have seen increasing research in the broad area of beneficial non-task employee behaviors. Several concepts have been proposed to capture such behaviors, like organizational citizenship behavior (OCB), prosocial behavior, organizational spontaneity, extra-role behavior, contextual performance, etc. But "contextual performance" (labeled here as organizational citizenship performance, meaning behaviors that support the organizational, social and psychological environment in which the technical core, i.e., task performance, must function) has emerged as the best specified concept (Organ, 1997).

Despite the emphasis by scholars on the twin needs of construct validity and developing culture-specific measures for concepts like OCB, progress is lacking in this direction. This study aims to fill this gap.

The research design involved three broad stages: item generation, scale development and assessment of scale's psychometric properties (reliability and validity). Fulltime and paid employees of several NGOs participated in data collection.

The emerging scale shows satisfactory psychometric properties. It is expected that this scale would be useful for research as well as practice. Besides bridging the research gaps mentioned above, NGOs can use it to measure organizational citizenship performance. With some modifications, this scale is expected to be useful for other Indian organizations as well.

Introduction[1]

Past two decades have witnessed increasing research in the broad area of beneficial non-task[2] behavior of employees. This stream of research originated with the seminal paper by Organ (1977), wherein he argued that some aspects of employee performance engendered by job satisfaction might not be acknowledged in existing literature. Bateman and Organ (1983) and Smith, Organ and Near (1983) further developed this idea. Bateman and Organ (1983) coined the term "citizenship behavior" (p. 588) to refer to such organizationally desirable employee behaviors. As predicted by Organ (1977), they found that job satisfaction correlated significantly with citizenship behaviors, the correlation coefficient being 0.41 at each of the two occasions 5 to 7 weeks apart. The cross-lagged correlation was 0.43. Smith et al. (1983) went a step ahead and identified two dimensions, altruism and generalized compliance, of what they called "organizational citizenship behavior" (OCB).

Brief and Motowidlo (1986) proposed a similar concept, prosocial behavior. They identified thirteen forms of prosocial employee behaviors, and elaborated upon distinctions among them. However, this construct was not prominently used in later research (Organ, 1997: 86). Organ (1988, as quoted in Organ, 1997: 88-89) defined OCB as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of organization." Two more similar concepts emerged in early nineties. Graham (1991, as quoted in Podsakoff, MacKenzie, Paine and Bachrach, 2000) proposed the concept "civic organizational behavior." George and Brief (1992) proposed yet another concept, "organizational spontaneity." These new concepts did differ slightly from similar previous concepts (Podsakoff et al., 2000: 515), however, they subsequently did not receive much attention from researchers.

Stemming from a different research concern, Borman and Motowidlo (1993, as quoted in Motowidlo, 2000: 116) gave another similar concept: contextual performance. The next section discusses this concept in detail and compares it with the conventional view of performance, i.e., task performance.

Contextual Performance vs. Task Performance

Contextual performance is defined as "behaviors supporting organizational, social and psychological environment in which the technical core must function" (Borman and Motowidlo, 1993, as cited in Kiker and Motowidlo, 1999: 602). The concept of contextual performance emerged in response to the research and practice of employee selection that emphasized on task aspect of performance only (Motowidlo, 2000: 116). Borman and Motowidlo (1993, as quoted in Motowidlo and Van Scotter, 1994: 475) argued that existing schemes of classifying job performance converged when distinguishing between two kinds of job performance, task performance and contextual performance. The criticality of technical proficiency for task performance vis-à-vis contextual performance was suggested to be a prominent distinguishing feature. It was argued that while technical proficiency is a must for task performance, contextual performance is conceptually independent of technical proficiency (Borman and Motowidlo, 1993, as quoted in Coleman and Borman, 2000: 25; Motowidlo and Van Scotter, 1994: 475, 476). Van Scotter and Motowidlo (1996: 525) suggested another difference between task and contextual performance. They noted that task performance differentiates one job from the other, while contextual performance is common to most jobs. Organ (1997: 90) endorsed this distinction while stating that the defining quality of contextual performance as defined by Borman and Motowidlo is that it is "non task."

Borman and Motowidlo (1993, as cited in Conway, 1999) had attempted addressing two issues: to suggest that selection practices did not consider one important aspect of performance, and

[1] I cannot express my gratitude to Dr. Badrinarayan Shankar Pawar in words. This research immensely benefited from his guidance while he was a faculty at Indian Institute of Management (IIM), Ahmedabad. IIM Ahmedabad funded this research. Several people including face validation judges, bilinguals, supervisors and respondents generously gave their time. I gratefully acknowledge the support from all these quarters.

[2] A subsequent section discusses the distinction between task behaviors and this class of employee behaviors.

ascertaining the variables for assessment during selection process in order to ensure contextual performance by selected employees. They conceptualized the following five dimensions of contextual performance (Borman and Motowidlo, 1993, as cited in Motowidlo and Van Scotter, 1994: 476):

1. Persisting with extra enthusiasm when necessary to complete own task activities successfully.
2. Volunteering to carry out task activities that are not formally part of the job.
3. Helping and cooperating with others.
4. Following organizational rules and procedures even when it is personally inconvenient.
5. Endorsing, supporting and defending organizational objectives.

Motowidlo and Van Scotter (1994) established the distinction between task and contextual aspects of performance. They showed that task and contextual performance contributed independently to overall performance assessment. They also found that different individual difference variables associated with task and contextual performance. While experience correlated significantly more with task performance than it did with contextual performance, reverse was the case with personality variables like work orientation, dependability, cooperativeness and internal control (Motowidlo and Van Scotter, 1994: 479). Here it is noteworthy that the scale of contextual performance included items for all the five dimensions mentioned above. This finding supported the two arguments made by Borman and Motowidlo in 1993:

(a) that contextual performance is a meaningful and separate performance dimension
(b) different variables get associated with task and contextual performance.

However, as explained subsequently, this distinction between task and contextual performance has faced some difficulties later. Van Scotter and Motowidlo (1996) conceptualized interpersonal facilitation and job dedication as two dimensions of contextual performance. Interpersonal facilitation included "cooperative, considerate and helpful acts that assist coworkers performance" (p. 525), while job dedication included "self-disciplined, motivated acts such as working hard, taking initiative, and following rules to support organizational objectives" (p. 525). A key feature of interpersonal facilitation was that it included *deliberate*[3] behaviors to boost morale, encourage cooperation, etc. Job dedication was conceptualized as the "motivational foundation for job performance" (Van Scotter and Motowidlo, 1996: 526; Conway, 1999). A comparison of these two dimensions with the five dimensions conceptualized earlier is provided below.

Table 1: Comparison between dimensions of contextual performance

1993 Classification	1996 Classification
Volunteering to carry out task activities that are not formally part of the job	Somewhat similar to "taking initiative" (job dedication dimension)
Persisting with extra enthusiasm when necessary to complete own task activities successfully	Somewhat similar to "working hard" (job dedication dimension)
Helping and cooperating with others	Cooperative, considerate and helpful acts that assist co-workers performance (interpersonal facilitation dimension)
Following organizational rules and procedures even when it is personally inconvenient	Somewhat similar to "following rules to support organizational objectives (job dedication dimension)
Endorsing, supporting and defending organizational objectives	

Table 1 shows that the new classification in 1996 left out some elements of the 1993 classification, viz., behaviors that endorse or defend organizational objectives. With this new conceptualization, Van Scotter and Motowidlo (1996) found somewhat mixed result. As found in Motowidlo and Van Scotter (1994), experience correlated significantly more with task performance than it did with any of the two contextual performance dimension. They also found that differences in correlations between each individual difference variable (e.g., goal orientation, positive affectivity, etc.) and job dedication and interpersonal facilitation were not statistically significant (Van Scotter and Motowidlo, 1996: 529).

[3] Emphasis added.

However, task performance was not distinguishable from job dedication. This result prompted Van Scotter and Motowidlo (1996: 530) to suggest refining the concept of task performance itself so as to include task proficiency as well as motivational elements (captured in job dedication dimension of contextual performance).

It should be noted that job dedication was measured using 8 items (e.g., putting in extra hours to get work done on time, persisting in overcoming obstacles to complete a task, tackling a difficult work assignment enthusiastically, etc.) (Van Scotter and Motowidlo, 1996: 527). Six of these eight items were also present in the sixteen item contextual performance scale used by Motowidlo and Van Scotter (1994) that lent support to task performance-contextual performance distinction. This lack of distinction between job dedication and task performance was also supported by Motowidlo, Borman and Schmitt (1997, as quoted in Conway, 1999: 4).

Kiker and Motowidlo (1999) also maintain the distinction between task and contextual performance. They also report that task performance and interpersonal facilitation (they did not use the other dimension, job dedication) had significant main effects on rewards, along with a significant interaction effect of the two. This study supports the findings of Motowidlo and Van Scotter (1994) and Van Scoter and Motowidlo (1996) more strongly as it used similar measures as used in these two studies.

Conway (1999: 11), however, found that job dedication was distinguishable from task performance for managers, though not for non-managers. On the basis of this result, he suggested that it would be hasty to conclude that job dedication and task performance could not be distinguished. He in fact suggested modifying job dedication dimension itself by removing volunteering behaviors. He believed that volunteering behaviors will be able to make unique contributions to overall performance. His findings suggested another possible source for variation in results, source of rating. Peers were more likely to differentiate both dimensions of contextual performance from task performance, but supervisor rating and self rating were not (Conway, 1999: 11).

A recent attempt by Coleman and Borman (2000) to refine and integrate various concepts capturing beneficial non-task employee behaviors has led to a threefold classification of such behaviors: citizenship behaviors directed towards individuals, towards organization and towards job/task. The last dimension (job/task conscientiousness) includes such behaviors as persisting with enthusiasm or putting in extra effort to successfully complete one's own job (p. 39). Such behaviors obviously aid task performance, and resemble the items of job dedication dimension, which was indistinguishable from task performance (at least for non-managerial employees). Additionally, Coleman and Borman (2000: 40-41) recognize the conspicuous absence of the last dimension (job/task conscientiousness) from five other conceptualizations (Smith et al., 1983; Organ, 1988; Morrison, 1994; Williams and Anderson, 1991 and Becker and Vance, 1993; all cited in Coleman and Borman, 2000) of beneficial extra-role employee behaviors. They report only one conceptualization (Van Dyne, Graham and Dienesch, 1994) having a similar dimension.

A study using the above mentioned three-fold classification (Johnson, 2001: 993) found that job-task conscientiousness represented task as well as contextual performance. Johnson (2001) found that the structural model having job/task conscientiousness as a dimension of both task and contextual performance was the best fit, as opposed to models in which it was a dimension of only task or only contextual performance. This dimension also provided significant incremental contribution over task performance to overall performance assessment. This finding is apparently opposite to the finding reported by Van Scotter and Motowidlo (1996) wherein job dedication and task performance were not distinguishable. However, it should be noted that these two studies used different scales for task and contextual performance. For example, task performance scale used in Van Scotter and Motowidlo (1996) did not include items on communication proficiency. Contextual performance was also measured differently in the two studies. This study used a single item to measure the job-task conscientiousness construct, thus making it impossible to estimate its reliability (Johnson, 2001: 994).

In a recent study (Scullen, Judge and Mount, 2003), contextual performance was conceptualized as a higher order construct having citizenship performance (the three dimensional concept as developed by

Coleman and Borman, 2000) as one of the lower order factors. The other lower order factor was human skill. This study conceptualized task performance as the other higher order construct, thus maintaining the distinction between task and contextual performance. But the conceptualization of three dimensional citizenship performance construct as a lower order factor of contextual performance is exactly opposite to the conceptualization of Coleman and Borman (2000), which included the five dimensions of contextual performance as behaviors constituting citizenship performance. The conceptualization of lower order constructs was supported in this study, but the hypothesized model involving higher order factors found mixed support. One problem with operationalization of the citizenship performance dimensions was that cut off employed in content validation was below the 80% norm (4 out of 6 judges, i.e., a cut off of 67%).

Analysis of Previous Conceptualizations

While comparing the three dimensional citizenship performance with previous conceptualizations of beneficial extra-role behaviors, Coleman and Borman (2000: 40) observed that majority of previous conceptualizations did not include job/task conscientiousness behaviors. Dimensions of two previous conceptualizations (other than relatively uncontroversial interpersonal dimensions) are described below to understand this distinction.

The factor labeled "generalized compliance" (Smith et al.. 1983: 657) is discussed first. Following items loaded significantly on this factor.

- Attendance at workplace above norm
- Gives advance notice if unable to come to work
- Punctuality
- Does not take extra breaks
- Takes undeserved breaks (reverse coded)
- Does not take unnecessary time off work
- Does not spend time in idle conversation
- Great deal of time spent with personal phone conversation (reverse coded)

These items essentially capture two things: the person comes to work in a predictable fashion, and after coming to work, does not waste time in undesirable activities. This is not equivalent to the behaviors reflected in the job/task conscientiousness dimension. The behaviors included in job/task conscientiousness are: persisting with enthusiasm and extra effort as to complete own task activities successfully, maximizing one's short term and long term performance, working beyond expectation within one's own job, and putting extra effort, etc. These behaviors are very closely associated with task, they capture behaviors that are required to accomplish a difficult task, and going beyond the assigned task. The behaviors in generalized compliance, on the other hand, emphasize on not wasting time, but not on accomplishing and going beyond the given task. It appears that behaviors included in job/task conscientiousness refer to motivated performance on task at hand, and the same (or similar) motivation that takes them beyond the expected level of task performance. And this brings forth the argument of Van Scotter and Motowidlo (1996) who suggested that such motivational elements should be included in the domain of task performance, and not contextual performance.

Another relevant classification is of OCB that primarily benefits organization (OCB-O); suggested by Williams and Anderson (1991). Following items are included in this dimension.

- Attendance at the work is above norm
- Gives advance notice when unable to come to work
- Take undeserved work breaks (reverse scored)
- Great deal of time spent in personal phone conversations. (reverse scored)
- Complains about insignificant things at work. (reverse scored)
- Adheres to informal rules devised to maintain order.

First four items are exactly the same as in the generalized compliance dimension (Smith et al., 1983). Overall, the behaviors representing OCB-O also do not relate directly to task performance, and they are nowhere close to the motivational elements included in the job/task conscientiousness dimension.

Job/Task Conscientiousness as Motivational Elements

The emerging picture is that job/task conscientiousness possibly refers to motivational aspects that contribute to organizational goal. One problem with calling the job dedication (Van Scotter and Motowidlo, 1996) or job/task conscientiousness behaviors (Coleman and Borman, 2000) as motivation is that they do not fit in the definition of motivation. Motivation is defined as "willingness to exert high levels of effort towards organizational goals, conditioned by the effort's ability to satisfy some individual need" (Robbins, 1995: 205). Three elements of this definition are effort, contribution to organizational goals and satisfaction of individual need (Robbins, 1995: 205). An analysis of behaviors included in the job/task conscientiousness dimension (provided in table 2) reveals a somewhat different picture.

Table 2: Comparison of job/task conscientiousness behaviors with motivation

Behavior	Elements of motivation		
	Effort	Organizational Goal	Individual Need
Volunteering to carry out task not part of own job	Yes	Yes	Can't say
Providing extra service or help to customers	Yes	Yes	Can't say
Persisting with enthusiasm on own job	Yes	Yes	Can't say
Putting forth extra effort on own job	Yes	Yes	Can't say
Displaying dedication on the job	Meaning of dedication is not clear.		
Engaging in self development to improve one's own effectiveness	Yes	Can't say, the person may leave organization after developing oneself	Probably
Working hard with extra effort	Yes	Yes	Can't say

The behaviors of job task conscientiousness portray effort and concern for organizational goals, but it is not clear if employees' willingness to perform them is conditioned by these behaviors' ability to satisfy some personal need. Overall, it can be said that these behaviors appear to entail extra effort and such extra effort contributes to organizational goals. But existence of some motivational element is doubtful.

To sum it up, following conclusions can be drawn from the above discussion.

a. Several studies maintain the conceptual distinction between task and contextual performance.
b. Conceptualizations of contextual performance that include task oriented behaviors have run into problems. Either such dimensions could not be distinguished from task performance (Van Scotter and Motowidlo, 1996), or they could be distinguished for some jobs (managers), but not for others.
c. Majority of previous conceptualizations do not include behaviors that represent job/task conscientiousness (Colman and Borman, 2000).
d. Considering behaviors of job/task conscientiousness motivational aspects of task performance seems doubtful as they probably do not relate to any individual need.

These conclusions suggest the merits of a conservative position and excluding task-oriented citizenship behaviors from the domain of beneficial non-task employee behaviors.

Support for the Construct of Contextual Performance

The multiplicity of concepts necessitated concept clarification and Organ (1997) attempted this. He highlighted some conceptual difficulties associated with "discretionary" and "not formally rewarded" aspect of the earlier OCB definition. After reviewing various constructs mentioned above, he suggested to use OCB more along the lines of contextual performance (Organ, 1997: 90-91). This new specification of OCB was further highlighted and supported by Motowidlo (2000: 116-118). Thus it emerges that the revised specification of OCB (Organ, 1997) or contextual performance (as suggested

by Motowidlo, 2000) is the most acceptable specification of beneficial non-task employee behavior. A recent study (Niehoff, 2000: 4) uses this approach for defining positive non-task behavior of employees.

It should be noted that while supporting the conceptualization of contextual performance, Organ (1997: 90) also notes the problems inherent in vague terms like "social" and "psychological" environment. He highlights the possible difficulties in their operationalization. However, he suggests that one should wait for the assessment of psychometric properties of contextual performance measures before discarding the concept itself.

General Citizenship and OCB as a Construct

While OCB captures the citizen like behaviors of employees as members of an organization, OCB research has also drawn upon the broader literature on citizenship. The most direct link between OCB and general citizenship literature is found in the construct of "civic virtue" which was introduced as one of the five OCB dimensions while attempting to improve the intellectual foundations of OCB. Civic virtue concept is rooted in the broader political philosophy of citizenship and governance (Graham, 2000). The enduring debates about the nature and extent of citizens' participation in governance and its reflection on the civic virtue concept in organization literature have been succinctly described by Graham (2000). This debate seeks answers to questions such as to what extent ordinary citizens should participate in governance and to what extent common good should be the guiding concern in such participation. As civic virtue consists of both challenging and affiliative behaviors, the debate in organizational domain seeks to know to what extent "civic virtue" on part of employees require them to challenge the status quo in a constructive manner. This debate is behind the occasional exclusion of challenging "civic virtue" behaviors (like suggesting improvements) from OCB (e.g., Coleman and Borman, 2000), while including affiliative behaviors like attending meetings, etc. (Graham, 2000: 70).

The Label of Organizational Citizenship Performance

Here it is noteworthy that Organ (1997: 91) suggested continuing with the label of OCB for easy communication, though he favored the specification of contextual performance. Coleman and Borman (2000: 28) provided support for this concern for an appropriate label, and used the label "citizenship performance" (CP) interchangeably with OCB. Johnson (2001: 984, 985) also suggests that citizenship performance can be another label for contextual performance. In yet another study (Borman, Penner, Allen and Motowidlo, 2001: 52, 67), the two labels (contextual performance and citizenship performance) are used interchangeably and authors state that citizenship performance is a more familiar label for the construct.

Following these instances, the label "citizenship performance" was adopted during data collection. However, subsequently it emerged that adding the prefix "organizational" clarifies the context. Hence the label "organizational citizenship performance" (OCP) is used in this paper.

Status of Measurement

Van Dyne, Cummings and Parks (1995) and Podsakoff et al. (2000: 515) note that the existing literature has mostly focused upon relationship of OCBs with other constructs rather than focusing upon the nature of construct and its measurement *per se*. Schwab (1980) has illustrated that such an unbalanced approach to research may generate a literature that turns out as futile in the long run. Van Dyne et al. (1995) also express similar views, thus establishing construct validity of OCB as an important research issue in itself.

Several measures of beneficial non-task employee behaviors are available in literature. These measures can be broadly categorized into two types.

a. General measures, developed without any specific cultural/national context in focus
b. Measures developed for specific cultural/national context

General Measures

Studies have used various measures of beneficial non-task employee behaviors; however, literature does not offer extensive evaluation of such measures. Table 3 lists some of the measures used.

Table 3 – Psychometric properties of various scales of beneficial non-task employee behaviors

Study	Measure Used	Reliability Reported	Validity Reported
Findley, Giles and Mossholder (2000), Kar and Tewari (1999), Lam, Hui and Law (1999), Moorman (1991), Rioux and Penner (2001)	Measure developed by Podsakoff, Mackenzie, Moorman and Fetter (1990)	Yes	Not clearly stated
Van Dyne and Ang (1998)	Measure developed by Van Dyne and LePine (1998)	Yes	Yes
Williams, Pitre and Zainuba (2002)	Modified version of measure developed by Podsakoff & MacKenzie (1989)	Yes	Not clearly stated
Motowidlo and Van Scotter (1994)	Special measure developed for this study by authors	Yes	Not clearly stated
Chaitanya and Tripathi (2001)	Special measure developed for this study by authors	Not clearly stated	Not clearly stated
Van Dyne and LePine (1998)	Adapted measures from Organ and Konovsky (1989), Smith et al. (1983), Van Dyne, Graham and Dienesch (1994), Withey and Cooper (1989)	Yes	Yes
Van Scotter, Motowidlo and Cross (2000)	Special measure developed for this study by authors	Yes	Yes
Lambert (2000)	Adapted measures from Organ and Konovsky (1989), Smith et al. (1983)	Not Clearly Stated	Not Clearly Stated
Van Dyne, Graham and Dienesch (1994)	Developed by authors	Yes	Yes
Kiker and Motowidlo (1999)	Adopted from Van Scotter and Motowidlo (1996)	Yes	Not Clearly Stated

Additionally Organ and Ryan (1995: 782) noted in a meta-analysis that most of the studies reviewed by them used some version of Smith et al. (1983) measure.

Measures Developed in Specific Cultural/National Context

Farh, Earley and Lin (1997) developed OCB scale for China. However, replication of such attempts for different cultures/nationalities is needed. Farh et al. (1997) claimed that there are etic (universal) and emic (culture specific) dimensions of OCB. Lam et al. (1999) found support for etic/emic distinction; they report that US and Australian employees did not differ from their counterparts in Japan and Hong Kong while rating if etic OCB items formed their expected role requirements. However, as elaborated later, comparison on emic dimensions revealed significant differences (p. 600).

Only one study (Chaitanya and Tripathi, 2001) has attempted to develop a scale for Indian context. Besides the five OCB dimensions suggested by Organ (1988), Chaitanya and Tripathi (2001: 221) suggested an additional dimension "display of voluntary behavior" distinct from "altruism" dimension of Organ. They argued that all altruistic behaviors are voluntary, but the converse is not true. However, this argument was not theoretically supported. Further, the sixth dimension emerging from

data was called "perception of organization towards OCB", and not "display of voluntary behavior", as theorized.

Rationale for Present Study

Following issues emerge from the above discussion on measurement.

Proper Operationalization

As mentioned earlier, Schwab (1980) emphasizes upon construct validity of measures. Van Dyne et al. (1995) also suggest that construct validity of any measure of beneficial non-task employee behaviors should be an important research issue in itself. Though contextual performance has been operationalized earlier (Motowidlo and Van Scotter, 1994; Van Scotter and Motowidlo, 1996), the scale development process and construct validity of these measures are not adequately described.

Influence of Cultural Differences

A review of OCB literature by Podsakoff et al. (2000) suggests cultural influences on OCB as a future research agenda. Exploratory findings of Paine and Organ (2000) also suggest that OCB may be interpreted or evaluated differently in different nations/cultures. They identify individualism-collectivism and power distance as potential sources of variation in research findings obtained in US context. For example, they suggest that initiative in workplace may be less in high power distance countries, as employees may limit themselves to what they are told. (p. 49). They also mention the possible impact of cultural factors on measurement of OCB (Paine and Organ, 2000: 56).

Farh et al. (1997) found that two dimensions of OCB, courtesy and sportsmanship, did not match with any of the five dimensions of Chinese OCB developed by them. Along with "interpersonal harmony" and "protecting company resources" dimensions of Chinese OCB, they grouped them as "emic" dimensions (p. 429). Subsequently, Lam et al. (1999) found that power distance influenced the in-role/extra role distinctions made by employees for these two OCB dimensions. They report that as compared to respondents from US and Australia (low power distance countries), respondents from Hong Kong and Japan (high power distance countries) considered sportsmanship behaviors (not complaining about less than ideal work conditions) more as part of their job. (p. 598). For courtesy behaviors (preventing work related problems with others), however, only Australian (and not US) respondents were less inclined to consider them as part of their job vis-à-vis employees in Japan and Hong Kong.

Studies also indicate that some measures of OCB developed in North America behave differently in other countries. In a cross-cultural study, Kwantes (2003: 16) reports that the published factor loading pattern (for 19 item OCB scale developed by Moorman and Blakely, 1995) and obtained loading pattern got significantly correlated for US sample ($r = 0.55$, $p < 0.05$), but not in case of Indian sample ($r = 0.34$, $p > 0.05$). Another study (Turnipseed and Murkison, 2000) also reports differential factor structure of yet another OCB scale (developed by Van Dyne et al. 1994) for samples from US and Romania. These considerations suggested development of a new OCP measure in India. As discussed earlier, some emic differences were expected to emerge in such an exercise.

Rationale for Choosing Organizational Citizenship Performance

As indicated earlier, organizational citizenship performance emerges as the most robust concept capturing beneficial non-task employee behaviors. Nevertheless, as Motowidlo (2000: 118) illustrates, it is important to understand the behavioral content of various concepts of extra-role behavior. Hence the specifications of various relevant concepts are provided below.

Organizational Citizenship Behavior – Organ (1988, as quoted in Organ, 1997: 88-89) has defined OCB as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of organization."

Prosocial Behavior (Brief and Motowidlo, 1986: 711) – Behavior that is:

a. Performed by a member of an organization
b. Directed towards an individual, group or organization with whom he or she interacts while carrying out his or her organizational role
c. Performed with the intention of promoting the welfare of the individual, group or organization towards which it is directed.

Organizational Spontaneity (George & Brief, 1992: 311) – These are voluntarily performed extra role behaviors that contribute to organizational effectiveness. This concept includes five behaviors:

a. Helping co-workers
b. Protecting the organization
c. Making constructive suggestions
d. Developing oneself
e. Spreading goodwill

Contextual Performance – As mentioned earlier, it has been defined as "behaviors supporting organizational, social and psychological environment in which the technical core must function" (Borman and Motowidlo, 1993, as cited in Kiker and Motowidlo, 1999: 602). These behaviors do not support the technical core itself so much as they support the broader organizational social and psychological environment in which technical core must function" (Borman and Motowidlo, 1993: 73, as quoted in Organ, 1997: 90). Another specification of contextual performance refers to "…a set of interpersonal and volitional behaviors that support the social and motivational context in which organizational work is accomplished" (Borman and Motowidlo, 1993, as quoted in Van Scotter and Motowidlo, 1996: 525).

The problems with the definition of OCB and suggestion to use contextual performance instead (Organ, 1997) have been discussed earlier. Further, Van Scotter (2000) indicates that contextual performance, as conceptualized by Borman and Motowidlo in 1993, is the least restrictive of all the constructs of positive non-task employee behaviors. He says that contextual performance simply refers to employee behaviors, without discussing role expectations, the actor's intentions or the expected beneficiaries (p. 80). Organ (1997: 90) also notes this feature of the definition of contextual performance. This flexibility offered by contextual performance (or, organizational citizenship performance) further supported its selection as construct to study.

Research Design

Schwab (1980) has suggested 3 stages of scale development.

a. Item Generation
b. Scale development – This involves deciding the manner in which items are combined to form scales.
c. Scale evaluation – This refers to testing the psychometric properties of the scale.

Considering that the research necessitated communication with several people not well-versed with English, documents and items were translated in local languages (Gujarati and Hindi). The following section describes the procedure adopted for translation.

Translation

Blind, back to back translation method was followed for translation (Brislin, 1986). A bilingual expert translated the English documents into local language, and then a second bilingual expert translated the local language document thus generated back to English. One of the researchers compared the original English version with the derived English version and discrepancies were sorted out through discussion with the two bilingual experts. This process was adopted throughout the study.

Item Generation

Vagueness of some terms in the organizational citizenship performance definition posed problems in item generation, as noted by Organ (1997: 90). Hence developing a definition became necessary, and the following definition was developed for this study.

Definition of Organizational citizenship performance

"Employee behaviors which do not procure, process or package the input or output on a job, but that do enhance positive interpersonal relations, group cohesion and morale, and contribute to organizational efficiency and effectiveness."

Specifications of Terms Used in Definition

Behavior: What an employee actually does on job.
Input: Labor (meaning humanpower), money and knowledge (technique, manual, relevant government rules and regulations, etc.).

Output: Service given to target group and society in immediate and distant future.
Procure: Getting inputs from outside for organization.

Process: Converting inputs into outputs.

Package: Making the output ready for delivery.

Group Cohesion: "Degree to which group members are attracted to each other and are motivated to stay in the group" (Robbins, 1995: 310).

Group Morale: "Collective mental condition of satisfaction, fulfillment or confidence of a group" (Gresov, Drazin, and Van de Ven, 1989: 46).

Organizational Efficiency – This can be taken as "amount of input used for one unit of effective output" (Robbins, 1995: 45).

Organizational Effectiveness – This is the degree to which an organization realizes its goals (Robbins, 1995: 45).

Item Generation Procedure

Item generation procedure resembles what Hinkin (1995) terms as "deductive approach." One of the researchers had worked with NGOs, so taking cue from existing scales and literature of OCB and OCP, several items were generated. It was ensured that none of these items matched with any item included in the scales chosen for validation. Fourteen supervisors (including three women), six employees (including two women) and six other employees (in a group) participated in several discussions for generating items. These practitioners came from nine NGOs, and were not surveyed subsequently. A bilingual expert facilitated conversation, wherever necessary. The above definition and description of constitutive terms were provided to these supervisors and employees, and they were requested to tell possible examples of organizational citizenship performance (as defined earlier). For this purpose, a local language version of above definition and specification of constitutive terms was prepared using the translation procedure described earlier. All the items generated by practitioners were combined with the items generated through literature review. Some examples were reworded to remove the problems of double-barrel statement and intensity of concerned attribute. For example, discussion with a supervisor revealed the following example:

"A fieldworker, while sharing his team's achievements with others, acknowledged the contribution made by other organizational members towards this achievement and dedicated it to a common entity, like unit, organization etc. to which all of them belonged."

This example was broken into two separate items for content validation.

1. A fieldworker, while sharing his/her or the team's achievements with others, acknowledges the contribution made by other people in organization towards this achievement.
2. A fieldworker, while sharing his/her or the team's achievements with others, dedicates it to a common entity, like team, department, unit, organization etc. to which both (or all) of them belong.

The combined pool thus generated consisted of 210 items. Item generation procedure followed here resembles deductive approach suggested by Hinkin (1995: 969). Based on the definition developed above, 68 items were generated through literature review. These items were adapted to fit the context of NGOs (e.g., including the word fieldworker, beneficiaries, etc). The remaining 142 items were generated by talking to practitioners. Some items looked repetitive, but no deletion was made at this stage.

Content Validation

Combined pool of items was subjected to content validity assessment. Seventeen judges (consisting of supervisors, employees, faculty members and Ph.D. students in advanced stages of their research) were given the definition of OCP and specification of constitutive terms. Following options were available to them to mark their response (Highlighted words were used as such in the original format given to judges).

Complete Disagreement – When you think that this example **DOES NOT AT ALL BELONG** to the construct of "organizational citizenship performance".
Slight Agreement – When you think that this example **SEEMS TO BELONG** to the construct of "organizational citizenship performance", but the agreement is **WEAK**.
Moderate Agreement - When you think that this example **SEEMS TO BELONG** to the construct of "organizational citizenship performance", but this time the agreement is **SOMEWHAT STRONGER.**
Strong Agreement - When you think that this example **SEEMS TO BELONG** to the construct of "organizational citizenship performance", and your agreement is **STRONG,** but in your opinion, this example is **NOT IN TOTAL AGREEMENT** with the construct.
Total Agreement – When you think that this example **TOTALLY BELONGS** to the construct of "organizational citizenship performance".

Item Selection Criteria

Using the following criteria, top 53 items were selected after validation.

a. No selected item received more than two "complete disagreement" as judgment. Thus at least 88% (15 out of 17) of the judges opined that selected items belonged to the construct to some degree.
b. Cutoff average score of selected items was 2.47, on a scale of zero (complete disagreement) to four (complete agreement). Therefore, selected items fell between moderate to strong agreement.

Pilot Study

Selected items were included in the pilot study along with Crowne and Marlow social desirability index
(http://www.psych.umn.edu/courses/SnyderM/psy5207/5207%20Website%20documents/Handouts%20&%20Scales/Scale%20-%20MCS.pdf). As selected items were expected to evoke socially desirable response pattern, and the survey was based on self-report, checking for socially desirable response pattern became necessary. The organizational citizenship performance items were randomized so that no particular pattern within them could exist. Six items were reverse-worded.

Ninety three employees from three NGOs (including three different field offices of one NGO) responded to the questionnaire. Prior permission was taken from these NGOs. Only full-time and paid employees were requested for response. 67 percent of respondents were male, with mean age of 33 years (SD of 6.4 years) and average work experience of 6.2 years (SD being 4.8 yrs). Employees were

involved in natural resource management, legal aid, local governance, etc. 21% of the respondents worked in urban areas, while the rest worked for rural people.

A bilingual expert accompanied one of the researchers to explain the respondents the purpose of study, how to mark responses, etc. Employees were assured that their individual responses would be kept confidential and only group data would be reported to organizations. Respondents wanting to send the response through post were given self-addressed and stamped envelopes. These procedures were adopted for the pilot as well as main study.

Correlation with Social Desirability

A significant correlation between responses to a particular item and respondents' social desirability score indicated the presence of socially desirable response pattern for that item. Nineteen items (out of the selected 53) correlated significantly (at 5% level) with social desirability index. These items were excluded from further analysis. Due to missing data, some correlations had 93 cases, while the remaining utilized 92 cases. The option of "pair wise deletion" was used for missing data. The remaining 34 items went for further examination.

Item Total Correlation

The correlation between individual items and all remaining items (also known as item total correlation) was checked. This indicated whether the remaining items were hanging together (getting significantly correlated). Selection of only closely knit items ensures better reliability[4] for the proposed scale.

One question that arose here was whether to take the total of all the 34 items for correlation, or, the total of remaining 33 items in each case should be taken. This becomes procedurally important when only a few items are analyzed. In such cases, inclusion of all the items in total obviously inflates the item-total correlation. As only few items (less than 80) were being analyzed, the following correction was applied to the correlation between each item and the total of all the 34 items (Nunnally, 1967: 262-263).

r (corrected) = [r (uncorrected) * (S.D. of total) – (S.D. of item in question)] / [V (Total) + V (Item in question) – 2 * r (uncorrected) * (S.D. of total) * (S.D. of item in question)]

Incidentally, one may see that after this correction, the correlations are same as the correlations with total of remaining 33 items (after excluding the item being checked). This result, however, was not exact after 3rd decimal point in case of items having only 92 responses. Table 4 presents the results.

Table 4: Item Total Correlation

Item Number	r(x,y)*	r(x, y-x)*	Nunnally Corrected*
OCP2	0.28	0.19	0.19
OCP4	0.47	0.41	0.41
OCP7	0.37	0.31	0.32
OCP8	0.39	0.34	0.34
OCP9	0.59	0.54	0.54
Item Number	**r(x,y)***	**r(x, y-x)***	**Nunnally**
OCP12	0.59	0.54	0.54
OCP13	0.37	0.31	0.31
OCP14	0.56	0.51	0.51
OCP16	0.06	0.00	0.00
OCP20	0.53	0.48	0.48
OCP21	0.46	0.41	0.41

[4] Reliability is defined as "the similarity of results provided by independent but comparable measures of the same object, trait or construct" (Churchill, 1992, p. 78).

OCP22	0.20	0.12	0.12
OCP24	0.51	0.43	0.43
OCP25	0.53	0.49	0.49
OCP27	0.56	0.52	0.52
OCP28	0.38	0.32	0.32
OCP30	0.35	0.30	0.30
OCP31	0.46	0.38	0.38
OCP32	0.46	0.41	0.41
OCP33	0.38	0.31	0.31
OCP35	0.38	0.33	0.33
OCP36	0.56	0.51	0.51
OCP37	0.38	0.32	0.32
OCP40	0.47	0.42	0.42
OCP41	0.50	0.45	0.45
OCP43	0.21	0.14	0.14
OCP44	0.50	0.45	0.45
OCP45	0.43	0.37	0.37
OCP47	0.44	0.38	0.38
OCP48	0.16	0.08	0.08
OCP50	0.32	0.25	0.25
OCP51	0.42	0.36	0.36
OCP52	0.41	0.35	0.35
OCP53	0.49	0.43	0.43

* r (x,y) = correlation between each item and total of all 34 remaining items.
r (x,y-x) = correlation between each item and total of 33 items, excluding itself.
Nunnally Corrected = Result after applying the correction formula given above.

The above analysis showed that five items did not have significant item-total correlation, thus leaving 29 items (with one reverse coded item) for further analysis. These 29 items are given in Appendix 2.

Exploratory Factor Analysis

One significant research question at this stage was to explore the latent dimensions underlying the remaining 29 items. Therefore the remaining 29 items were factor analyzed using principal component method. Ten factors having eigenvalues of 1 or more emerged, explaining 69.69% of the total variance. The initial factor structure was not clean, and hence factors were rotated. As the theoretical structure was not clear, orthogonal rotation (varimax) was employed. The rotated component matrix is given in Table 5.

Table 5: Rotated component matrix (scale development stage)

Items	1	2	3	4	5	6	7	8	9	10	Communality
1	0.24	0.09	0.17	0.08	0.19	-0.06	0.04	-0.06	*0.78*	-0.02	0.75
2	0.09	-0.04	-0.19	0.19	0.19	-0.04	0.46	*0.67*	0.07	-0.08	0.80
3	0.22	-0.03	0.11	*0.78*	0.14	-0.07	-0.13	0.16	0.14	0.01	0.76
4	*0.69*	0.12	0.13	0.21	0.02	0.14	-0.09	0.19	0.06	0.05	0.62
5	*0.75*	0.03	0.15	0.15	0.00	-0.08	0.31	0.01	0.13	0.10	0.73
6	0.11	*0.72*	-0.04	0.05	-0.08	-0.03	0.04	0.05	0.04	0.12	0.56
7	0.33	0.39	0.07	0.05	-0.06	-0.15	0.53	0.18	0.11	0.35	0.74
8	*0.73*	0.29	0.04	-0.12	-0.01	0.15	0.06	-0.02	0.23	0.06	0.72
9	0.39	0.52	0.03	0.29	0.17	0.04	0.01	-0.17	-0.04	-0.13	0.58
10	0.24	-0.08	0.32	0.08	0.09	0.49	-0.04	0.13	0.02	0.34	0.56

Items	1	2	3	4	5	6	7	8	9	10	Communality
11	0.34	0.11	0.42	0.29	0.19	0.28	-0.03	0.17	-0.13	0.35	0.68
12	0.36	0.12	*0.56*	0.24	0.12	0.17	0.11	-0.02	0.02	-0.18	0.61
13	0.10	-0.15	0.20	0.09	*0.80*	0.12	0.05	-0.06	-0.02	0.06	0.75
14	0.08	0.08	-0.06	-0.12	0.20	0.20	0.12	0.03	0.02	*0.80*	0.77
15	0.13	0.15	0.22	0.01	0.41	0.53	0.05	-0.02	-0.40	0.08	0.71
16	0.15	*0.72*	0.14	0.06	0.07	0.17	0.09	0.17	0.01	-0.06	0.64
17	0.15	0.20	-0.17	-0.02	0.53	0.23	0.02	0.33	0.19	-0.45	0.76
18	0.12	0.29	-0.04	-0.12	0.33	0.31	-0.25	0.22	0.35	-0.03	0.55
19	0.46	0.33	-0.04	0.27	0.14	-0.01	0.02	0.34	-0.12	-0.06	0.55
20	0.06	0.27	-0.02	*0.82*	0.07	-0.01	0.02	-0.04	0.00	-0.09	0.77
21	0.01	0.45	*0.56*	0.06	0.03	-0.31	-0.04	0.31	0.16	-0.03	0.74
22	0.09	*0.55*	0.15	0.25	-0.02	0.38	-0.16	-0.04	0.38	0.10	0.73
23	-0.11	0.10	0.07	0.17	*0.72*	-0.01	0.19	0.08	0.17	0.22	0.69
24	0.10	0.16	0.14	-0.04	-0.06	0.19	-0.12	*0.78*	-0.10	0.10	0.74
25	0.01	0.09	0.04	-0.04	0.07	*0.81*	0.11	0.10	0.08	0.06	0.70
26	0.10	-0.01	0.01	-0.07	0.20	0.13	*0.81*	-0.05	0.00	0.06	0.73
27	0.09	-0.09	*0.82*	0.01	0.16	0.11	-0.05	-0.11	0.12	0.09	0.75
28	0.10	0.04	0.08	0.52	-0.08	0.34	0.23	-0.05	*0.55*	0.04	0.78
29	-0.05	0.33	*0.57*	-0.20	-0.12	0.20	0.46	0.14	0.04	-0.03	0.77
Variance (%)	**9.09**	**8.99**	**7.66**	**7.52**	**7.16**	**7.06**	**5.98**	**5.86**	**5.54**	**4.84**	**69.69**

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Considering the sample size of 93, loading above 0.55 was considered as significant (computations made with SOLO power analysis, BMDP Statistical Software, Inc., 1993, as quoted in Hair, Anderson, Tatham, and Black, 1998: 112). All significant loadings are displayed in underlined italics in Table 5. The communality of each item is also shown. It can be seen that eight items do not have any significant loadings. Each remaining item loads on just one factor, thus obviating the problem of cross loading. Table 6 gives the items loading on their respective factors.

Table 6: Factor solution (scale development stage)

Factor	Items Loading Significantly
1	4, 5, 8
Factor	**Items Loading Significantly**
2	6, 16, 22
3	12, 21, 27, 29
4	3, 20
5	13, 23
6	25
7	26
8	2, 24
9	1, 28
10	14

Though eight items displayed no significant loadings, no item was deleted at this stage considering small sample size.

Main Survey

NGOs included in the pilot study were not included in the main study. Three hundred and thirty nine responses (including thirteen postal responses) were obtained by visiting thirteen NGOs with their prior permission. In two of these NGOs, responses were also obtained from employees of at least nineteen other NGOs who were there for training purposes. Finding the exact number of such NGOs was not possible, as 65 such respondents did not report their parent organization. Permission was not taken from such employees' parent organizations; however, these 65 employees voluntarily

participated in the study upon being requested. Only full-time and paid employees were requested to participate. A bilingual expert was present to explain the respondents the purpose of study, how to mark responses, etc. Employees were assured that their individual responses would be kept confidential and only group data would be reported to organizations. Self-addressed and stamped envelopes were given to thirty respondents as they wanted to send the response through post. Thirteen of them subsequently sent their response, indicating a response rate of 43%.

Four responses were discarded as these came from people who were not full-time, paid NGO employees. Five more responses were discarded as the respondents were involved in non-program activities (like clerk, programmer, cook, etc.). Remaining three hundred and thirty responses were used for analysis.

Sixty percent of respondents were male. Respondents were, on an average, 29 years old (SD being 7.2 yrs) with 5.83 years of work experience (SD equaling 6.64 yrs) in current as well as previous organizations. Respondents were involved in a wide range of activities like education, adult education, special education for physically challenged people, community health, natural resource management, women's empowerment, local governance, etc. Twelve percent of respondents (belonging to three NGOs) worked in urban areas, while the rest worked in rural areas.

Main survey intended to refine the scale as well as to assess its construct validity. Construct validity has the following three aspects (Churchill, 1992: 77).

a. The measure should correlate with or behave similarly to other measures designed to get at the same thing, meaning it should have convergent validity
b. The measure should also have discriminant validity, meaning it should not correlate too highly with measures designed to assess different things (Campbell and Fiske, 1959).
c. The measure should behave as expected with other constructs to which it is theoretically related, i.e., it should display nomological validity (Peter, 1981).

Constructs used for convergent and discriminant validity assessment are given in Table 7.

Table 7: Constructs used in the validation

Construct	Purpose (Validity)
Organizational Retaliatory Behavior	Discriminant
In-role Behavior	Discriminant
Anti-OCB	Discriminant
Absenteeism	Discriminant
Chinese OCB (Two "emic" dimensions)	Convergent
Altruism Dimension of OCB Scale	Convergent
Interpersonal Facilitation	Convergent
Job Dedication	Convergent

Selection of Constructs for Convergent and Discriminant Validity

Organizational retaliatory behavior (ORB) has been researched as a negative counterpart of OCB (Skarlicki and Folger, 1997: 435). Thus ORB was expected to correlate negatively with organizational citizenship performance. Similarly, Ball, Trevino and Sims (1994: 309) report a correlation of -0.6 between citizenship behavior and Anti-OCB, leading to an expectation of similar result in this study. Absenteeism was also expected to correlate negatively with organizational citizenship performance.

Werner (2000: 4) and Williams and Anderson (1991) discuss the attempts to distinguish between in-role behavior and OCB. Williams and Anderson (1991: 609-610) report that in-role behavior and two dimensions of OCB formed three separate factors of a composite scale of performance. Similar findings were expected in this study to support discriminant validity.

Interpersonal facilitation and job dedication had emerged as two dimensions of contextual performance (Van Scotter and Motowidlo, 1996). It was expected that these dimensions will get positively correlated to organizational citizenship performance. Altruism dimension of OCB (Smith, Organ and Near, 1983) was found to be a stable factor (Organ and Konovsky, 1989). It was expected to correlate positively to organizational citizenship performance. Two "emic" dimensions of Chinese OCB scale ("interpersonal harmony" having four items and "protecting company resources" having three items) were also included for convergent validity assessment, considering the culture-specific nature of proposed OCP scale. Here it should be noted that factor analysis of these seven "emic" done in this study yielded only one factor, explaining 59.33% of variance. Hence all the seven items were grouped for further analysis.

Exploratory Factor Analysis

Adopting the same procedure as described for exploratory factor analysis at pilot stage, nine factors were extracted, explaining 54.7% of the total variance. Table 8 provides the rotated component matrix.

Table 8: Rotated component matrix (scale evaluation stage)

Items	1	2	3	4	5	6	7	8	9	Communality
1	0.01	*0.57*	0.10	0.10	0.04	0.11	*0.42*	0.03	-0.19	0.56
2	0.27	-0.19	-0.01	0.02	0.10	-0.15	*0.67*	0.07	-0.10	0.61
3	0.04	0.21	-0.09	0.16	0.09	0.24	*0.62*	0.01	0.21	0.58
4	0.11	0.26	*0.42*	*0.52*	0.07	0.06	0.03	-0.07	0.08	0.55
5	0.19	*0.64*	0.08	0.00	0.16	0.13	-0.14	0.02	-0.06	0.52
6	0.13	0.17	0.11	-0.08	0.03	0.04	0.23	*0.70*	-0.12	0.62
7	0.00	0.02	0.04	*0.69*	0.07	0.06	0.13	0.26	-0.05	0.57
8	0.28	*0.34*	-0.05	*0.36*	0.10	-0.22	0.03	0.08	*0.34*	0.51
9	-0.01	0.17	0.23	0.20	*0.69*	0.09	0.18	-0.07	0.06	0.65
10	*0.45*	0.12	0.07	*0.36*	0.05	-0.01	-0.01	-0.12	0.17	0.39
11	0.09	*0.54*	0.20	-0.17	0.17	-0.05	*0.32*	0.16	0.14	0.55
12	0.11	*0.54*	0.15	*0.33*	0.11	-0.02	-0.03	0.08	-0.04	0.46
13	*0.38*	*0.60*	-0.06	0.07	0.03	0.12	-0.03	0.06	-0.01	0.53
14	0.30	-0.01	0.03	0.17	*0.50*	-0.20	-0.03	0.21	-0.01	0.45
15	0.01	*0.30*	0.20	0.10	-0.12	*0.60*	0.09	0.13	-0.04	0.53
16	*0.56*	0.12	0.11	0.25	0.00	0.25	0.21	0.12	-0.11	0.54
17	*0.34*	-0.09	0.07	0.03	0.19	*0.67*	-0.07	0.03	0.07	0.62
18	*0.35*	0.23	0.16	0.12	0.10	*0.30*	0.10	-0.04	0.17	0.36
19	0.28	-0.03	0.23	*0.47*	0.15	0.23	0.02	-0.06	-0.21	0.47
20	0.05	0.17	0.06	-0.04	*0.79*	0.12	0.06	0.05	-0.01	0.68
21	0.15	0.03	*0.62*	0.11	0.12	0.12	0.05	0.24	0.01	0.51
22	*0.40*	0.21	0.04	0.10	0.25	*0.31*	0.07	0.17	0.05	0.41
23	*0.66*	0.16	0.05	0.08	0.16	0.03	0.03	0.19	-0.14	0.56
24	*0.56*	0.04	*0.47*	-0.08	0.02	-0.15	0.29	0.01	-0.03	0.65
25	*0.62*	0.19	0.17	-0.06	-0.02	0.19	0.07	0.04	0.04	0.50
26	-0.06	-0.13	0.05	-0.05	0.01	0.07	0.02	0.00	*0.85*	0.76
27	0.04	0.28	*0.62*	0.02	0.15	-0.02	-0.07	0.05	0.16	0.51
28	0.07	0.03	0.06	0.24	0.06	0.09	-0.12	*0.75*	0.12	0.67
29	0.13	-0.03	*0.68*	0.14	0.02	0.19	-0.06	-0.04	-0.09	0.55
Variance (%)	**9.15**	**8.26**	**6.78**	**5.83**	**5.76**	**5.08**	**4.94**	**4.82**	**4.06**	**54.7%**

Rotated Component Matrix, Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Significance of factor loading was determined by the criteria mentioned earlier (computations made with SOLO power analysis, BMDP Statistical Software, Inc., 1993, as quoted in Hair, Anderson, Tatham, and Black, 1998: 112). For a sample size of 250, loading of 0.35 is considered as significant, while for a sample of 350, loading of 0.3 becomes significant. They also mention that as a thumb rule,

loading of 0.3 should be considered as significant (Hair, Anderson, Tatham and Black, 1998: 111). Considering these two criteria, a loading of 0.3 was taken as significant for this analysis.

The conventional criterion for assessing the lack of cross loading of an item is that the second highest loading and the highest loading of that item should differ by at least 0.2 (Stamper and Masterson, 2002: 884). It can be seen that seven items (item number 1, 4, 8, 10, 18, 22 and 24) had such cross loadings that justified their exclusion from further analysis. The factors were interpreted as per loadings of remaining items. Table 9 provides the labels for these factors.

Table 9: Factor labels

Factor	Items Loading Significantly	Label
1	16, 23, 25	Stewardship
2	5,11,12,13	Other Orientation
3	21, 27, 29	Beneficiary Orientation
4	7, 19	Not interpretable
5	9, 14, 20	Cohesion Promotion
6	15, 17	Affirmative Action
7	2, 3	Informal Orientation
8	6, 28	Sensitivity for Others
9	26	Fairness

Factor four was dropped as it could not be interpreted meaningfully. Nunnally (1967) suggests that a factor should be dropped if none of the items load highly (more than 0.7) on it. His argument is that in such a case, no item meaningfully represents the factor. Though this criterion (not having high loading items) for dropping a factor is different from the situation here (i.e., items not helping in interpreting the factor), nevertheless, this suggests that dropping a factor is possible. Item 14 (loading on factor 5) was also problematic, as it had the lowest loading on this factor and it could not be interpreted in conjunction with the remaining two items. Consequently factor 5 was interpreted with the remaining items (item 9 and 20). Rest of the items and factors posed no difficulty in interpretation. Table 10 provides the remaining factors along with their interpretations and items loading on them.

Table 10: Description of factors

Factor	Factor Label	Items	Description
1	Stewardship	16, 23, 25	Reflects a concern for protection and overall effectiveness of organization.
2	Other Orientation	5,11,12,13	Reflects a concern for welfare of colleagues as well as beneficiaries (clients).
3	Beneficiary Orientation	21, 27, 29	Reflects a concern for welfare of beneficiaries (clients).
5	Cohesion Promotion	9, 14, 20	Reflects efforts at promoting team bonding.
6	Affirmative Action	15, 17	Reflects activities aimed at improving “wrong” things around.
7	Informal Orientation	2, 3	Reflects the tendency to promote an informal work environment.
8	Sensitivity for Others	6, 28	Reflects the sensitivity toward feelings of other humans, including colleagues and beneficiaries (clients).
9	Fairness	26	Reflects fairness towards colleagues.

In subsequent analysis, these eight remaining factors have been denoted by FF1 to FF8, and they are represented by summated scores of the items loading on each of them, as given in table 10. Following points are noteworthy about the factor structure at the exploratory and main survey stage.

a. The only negatively worded item (item no. 26) formed a separate factor both the times.

b. Two items (no. 4 and 8) showing clear loading on the first factor at exploratory stage exhibited cross loading in the main study.
c. Items 18 and 22 did not show any significant loading at exploratory stage and in the main survey, they exhibited cross loading, thereby failing to yield any meaningful result.

Higher Order Factor Analysis

Two other alternatives were also tried at this stage, consistent with the validation procedure reported in Carless (1998, 2001). Firstly, a single factor solution was forced, yielding a factor explaining just 20.4% of total variance. Next, higher order factor analysis was attempted. Higher order factor analysis uses the solution of exploratory factor analysis to investigate if some still deeper underlying construct influences the factors obtained in lower order factoring. The next section discusses the various ways of using factor analysis results for further statistical analysis.

Using Factor Analysis Result for Further Statistical Analysis

Hair et al. (1998: 115) describe how the results of factor analysis can be used for further statistical analysis. One use of factor analysis results for further statistical analysis is to replace the original set of variables with smaller set of factors. Three procedures are available for converting factors into usable variables (Hair et al., 1998: 115). These three procedures are described below.

A. **Use of Surrogate Variable (Item):** This procedure involves using the item having the highest loading on a particular factor as the surrogate variable for that factor. This procedure has following limitations.

1. Many factors may have more than one item loading highly on them, and this is the situation in this study as well. At times, all these multiple high loadings on a factor are so close to one another that selecting one of them to represent the factor becomes difficult (Hair et al., 1998: 116).
2. In order to resolve the above difficulty, theory helps at times by telling which item best represents the factor. As theorization at factor level is not done in the present study, so this option is not feasible.
3. One major shortcoming of this approach is that it does not help control measurement error. Nunnally (1967: 360) also points out this limitation. By using more than one item to measure a construct, measurement errors get evened out to some extent (Hair et al., 1998: 116).
4. Another major disadvantage is that many constructs are multifaceted in nature, and choosing a single item to represent such constructs results in a deficient measurement of construct (Hair et al., 1998: 116). Nunnally (1967: 360) highlights this aspect by pointing out that even if the item is having a high loading of 0.7 on a factor, it explains only 49% of the variance in that factor, assuming there is no measurement error.

Due to these shortcomings, use of surrogate variable was not considered to be appropriate in this study.

B. **Summated Scales:** This approach involves using the sum (or average) of all items that load highly on a factor as representative of that factor. Two advantages of this approach are given below.
1. This approach reduces the possibility of measurement error (Hair et al., 1998: 116).
2. It captures the multiple facets of a concept in a better fashion (Hair et al., 1998: 117).

Additionally, in a review of the use of factor analysis techniques in three major journals of industrial/organizational psychology (Journal of Applied Psychology, Personnel Psychology and Organization Behavior and Human Performance), Ford, MacCallum and Tait (1986: 304) found that 107 out of 152 studies reviewed used factor scores, but only 57 of these reported the method of factor calculation. Of these 57, 45 studies used summated scales. Thus summated scale appears to be the dominant mode of using factor analysis results in further statistical analysis. Ford et al. (1986: 298) also report the problem of indeterminacy while computing factor scores. This problem refers to a situation of varying values of factor scores due to different techniques employed for factor analysis (like common factor analysis vs. PCA) or due to different techniques employed for computing factor scores (like regression, least square, etc.). They report that due to this problem of indeterminacy,

Cattell (1958, as quoted in Ford et al., 1986: 298) "recommended the simple summing of variables salient to a particular factor." However, as per Hair et al. (1998), the use of summated scales for further statistical analysis should meet the following criteria.

1. Summated scale should have a conceptual definition (Hair et al., 1998: 117). However, theorization has not been done in the present study at the level of factors.
2. Summated scale should represent a unidimensional construct (Hair et al., 1998: 117). This condition gets fulfilled due to nature of factor analysis result.
3. Summated scale should have adequate (Cronbach alpha exceeding 0.7) reliability. Table 11 given below provides the reliability (Cronbach alpha) of the sub scales.

Table 11: Reliability of the sub scales

Sub-Scale	Reliability Estimates
FF1	0.62
FF2	0.63
FF3	0.56
FF4	0.55
FF5	0.41
FF6	0.30
FF7	0.44
FF8	NA (single item sub-scale)

As table 11 shows, the condition of reliability of sub-scales being more than 0.7 is not met in the present study. Hence their use as separate sub-scales would not be justified.

4. Summated scale should also display convergent, discriminant and nomological validity (Hair et al., 1998: 118). This can be tested through following procedures.

a. Correlating each sub-scale to other constructs used for convergent validation: Table 12 provides these results. In table 12, the correlations have been corrected for low reliability of the variables. The formula[5] for correction is given below.

$$r_{xy}\ (\text{true}) = r_{xy}\ (\text{observed}) \,/\, [\text{SQRT}\{r_{xx}r_{yy}\}]$$

In this formula,

r_{xy} (true) = true correlation between variables X and Y
r_{xy} (observed) = observed correlation between variables X and Y
r_{xx} = reliability of the scale of variable X
r_{yy} = reliability of the scale of variable Y

[5] Downloaded from the web page http://www2.chass.ncsu.edu/garson/pa765/reliab.htm on October 14, 2003. This web page is associated with Prof. G. David Garson of Political Science and Public Administration department, North Carolina State University.

Table 12: Convergent validation of sub-scales

Construct		FF1	FF2	FF3	FF4	FF5	FF6	FF7	FF8
Chinese OCB	Obtained Correlation	0.00	0.04	0.05	0.07	-0.08	-0.11	0.02	0.12
	Sig. (2-tailed)	0.95	0.48	0.38	0.24	0.16	0.05	0.71	0.04
	Corrected Correlation	*0.00*	*0.05*	*0.07*	*0.09*	*-0.13*	*-0.21*	*0.03*	*NA*
	Sig. (2-tailed)	*0.94*	*0.34*	*0.22*	*0.09*	*0.02*	*0.00*	*0.54*	*NA*
Altruism	Obtained Correlation	0.43	0.31	0.32	0.18	0.23	0.14	0.18	0.03
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.56
	Corrected Correlation	*0.68*	*0.48*	*0.54*	*0.31*	*0.45*	*0.32*	*0.34*	*NA*
	Sig. (2-tailed)	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.01*	*0.00*	*NA*
Interpersonal Facilitation	Obtained Correlation	0.45	0.47	0.34	0.25	0.24	0.18	0.33	0.02
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71
	Corrected Correlation	*0.70*	*0.71*	*0.54*	*0.40*	*0.46*	*0.39*	*0.61*	*NA*
	Sig. (2-tailed)	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.01*	*0.00*	*NA*
Job Dedication	Obtained Correlation	0.43	0.36	0.34	0.32	0.23	0.18	0.24	0.04
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
	Corrected Correlation	*0.62*	*0.51*	*0.51*	*0.49*	*0.40*	*0.36*	*0.41*	*NA*
	Sig. (2-tailed)	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.01*	*0.00*	*NA*

Table 12 shows that except for Chinese OCB and FF8 (which consists of the only negatively worded item), all other correlations are significant and positive. This provides support for convergent validity of the sub scales. The next subsection assesses the discriminant validity of these sub-scales.

b. Correlations among the subscales should be low enough to suggest discriminant validation. Table 13 shows these correlations.

Table 13: Discriminant validation of sub-scales

		FF1	FF2	FF3	FF4	FF5	FF6	FF7	FF8
FF1	Pearson Correlation	1							
	Sig. (2-tailed)	.							
FF2	Pearson Correlation	0.46	1						
	Sig. (2-tailed)	0.00	.						
FF3	Pearson Correlation	0.35	0.30	1					
	Sig. (2-tailed)	0.00	0.00	.					
FF4	Pearson Correlation	0.28	0.35	0.29	1				
	Sig. (2-tailed)	0.00	0.00	0.00	.				
FF5	Pearson Correlation	0.37	0.29	0.31	0.18	1			
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	.			
FF6	Pearson Correlation	0.28	0.16	0.06	0.21	0.10	1		
	Sig. (2-tailed)	0.00	0.00	0.27	0.00	0.08	.		
FF7	Pearson Correlation	0.28	0.28	0.23	0.20	0.19	0.16	1	
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	.	
FF8	Pearson Correlation	-0.10	-0.06	0.01	-0.01	0.01	0.01	-0.02	1
	Sig. (2-tailed)	0.08	0.32	0.88	0.91	0.85	0.92	0.69	.

Table 14 provides the above correlations corrected for attenuation.

Table 14: Discriminant validation of sub-scales (corrected for low reliability)

		FF1	FF2	FF3	FF4	FF5	FF6	FF7	FF8
FF1	Pearson Correlation	1							
	Sig. (2-tailed)	.							
FF2	Pearson Correlation	0.74	1						
	Sig. (2-tailed)	0.00	.						
FF3	Pearson Correlation	0.59	0.51	1					
	Sig. (2-tailed)	0.00	0.00	.					
FF4	Pearson Correlation	0.48	0.59	0.53	1				
	Sig. (2-tailed)	0.00	0.00	0.00	.				
FF5	Pearson Correlation	0.73	0.57	0.64	0.37	1			
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	.			
FF6	Pearson Correlation	0.65	0.37	0.15	0.51	0.27	1		
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	.		
FF7	Pearson Correlation	0.54	0.53	0.47	0.41	0.44	0.43	1	
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	.	
FF8	Pearson Correlation	-0.10	-0.06	0.01	-0.01	0.01	0.01	-0.02	1
	Sig. (2-tailed)	0.08	0.32	0.88	0.91	0.85	0.92	0.69	.

Again, table 14 shows that except for FF8, all other sub scales get significantly correlated among themselves. This result shows that except for FF8, other sub-scales do not exhibit discriminant validity.

In the above discussion on the use of summated scales, of the six criteria (conceptual definition, unidimensionality, adequate reliability, convergent validity, discriminant validity and nomological validity) prescribed for assessing if summated scales can be used as separate variables, only five have been investigated (except nomological validity). Of these five, only two criteria (unidimensionality and convergent validity) are met. Hence the use of first order factors as separate variables (represented by summated scales) is not justified. In fact, lack of discriminant validity and presence of convergent validity suggest that these summated scales probably measure very closely related (or a single) conceptual domain. This has been further investigated through higher order factor analysis.

C. **Factor Score:** This is the third and the last suggested option. Factor scores are the composite measures of each factor for each subject (Hair et al., 1998: 119). One difference between factor score and summated scale score is that all items loading on a factor are utilized in computing the factor score (p. 119), and weight of each item is different.

One disadvantage of using factor score is that these are computed on the basis of factor matrix which is sample specific. This limits the replication potential of results that use factor scores as variables (Hair et al., 1998: 119). One advantage of using factor scores, however, is that they can be made to be uncorrelated (using orthogonal rotation). And orthogonality of variables is an essential condition in many statistical analyses.

As mentioned previously, it can be investigated if these first order factors obtained are influenced by some still deeper construct. Higher order factor analyses have been conducted for this purpose, using summated scales as well as factor scores. The justification for using both of them is given below.

- As reported by Ford et al. (1986), summated scale is the most prevalent use of factor analysis results for subsequent statistical analysis.
- The above discussion provides the merit (complete representation of factors by using all items) of using factor scores for further statistical analysis.

Higher Order Factor Analysis Using Summated Scale

The eight summated scales (reported in table 10) were factor analyzed. Three different factor analysis techniques were used, and Table 15 provides the results.

Table 15: Higher order factor structure

First Order Factors	Principal axis factoring (oblimin rotation)		Principal component analysis (oblimin rotation)		Principal component analysis (varimax rotation)	
	1	2	1	2	1	2
FF1	*0.62*	0.17	*0.75*	-0.15	*0.75*	-0.17
FF2	*0.61*	0.06	*0.70*	-0.09	*0.70*	-0.10
FF3	*0.63*	-0.18	*0.63*	0.19	*0.63*	0.17
FF4	*0.42*	0.13	*0.59*	0.05	*0.59*	0.03
FF5	*0.53*	-0.09	*0.59*	0.16	*0.59*	0.14
FF6	0.06	*0.55*	*0.39*	-0.11	*0.39*	-0.12
FF7	*0.38*	0.09	*0.53*	-0.03	*0.53*	-0.04
FF8	-0.04	-0.03	-0.02	*0.96*	-0.02	*0.96*
Variance* (%)	**32.20**	**12.75**	**32.20**	**12.75**	**32.15**	**12.80**

* Variance explained of total variance

Principal components analysis with oblique as well as orthogonal rotation suggested that all but one sub-scales belonged to a single higher order latent construct. The only remaining sub-scale consisted of the single negatively worded item, and it consistently formed a separate factor in pilot analysis, main analysis as well as here. However, principal axis factoring (using only the common variance in data) with oblique rotation revealed a slightly different structure, with the factor of negatively worded item not showing any significant loading. A different first order factor loaded on the second higher order factor, and the two higher order factors were correlated (r = 0.38).

Higher Order Factor Analysis using Factor Scores

This sub section describes higher order factoring using factor scores. As orthogonal rotation yields factors not amenable to further factoring (Nunnally, 1967: 367), oblique rotation was employed. Here it should be noted that principal components analysis with orthogonal rotation is the most prevalent way of conducting factor analysis while developing new scales (Hinkin, 1995). Oblique rotation has been employed here only for the purpose of getting correlated first order factors which can be later used for higher order factoring. The results of the two different rotations (orthogonal and oblique) are not comparable in the case of first order factor analysis itself; and hence the results of higher order factor analysis based on them are also not comparable. As mentioned earlier, oblique rotation has been used here only to have correlated factors in order to investigate if some underlying construct influences these first order factors. Table 16 provides the result of oblique rotation while conducting principal components analysis on items.

Table16: Factor analysis of OCP items (oblique rotation)

Items	1	2	3	4	5	6	7	8	9
OCP1	-0.06	-0.04	*0.39*	0.02	-0.01	-0.07	-0.22	0.03	*0.52*
OCP2	*0.37*	-0.03	-0.41	0.11	-0.05	0.06	-0.10	0.16	*0.54*
OCP3	-0.03	-0.12	-0.02	0.07	0.00	0.14	0.19	-0.16	*0.70*
OCP4	-0.01	-0.48	0.19	0.02	0.10	-0.40	0.08	0.03	0.07
OCP5	0.04	0.09	*0.66*	0.14	-0.01	-0.05	-0.08	-0.09	-0.04
OCP6	0.07	0.13	0.02	-0.01	-0.71	-0.07	-0.12	0.02	0.17
OCP7	-0.13	-0.69	-0.06	0.03	-0.25	0.00	-0.04	0.01	0.12
OCP8	0.22	-0.31	*0.32*	0.07	-0.07	0.09	*0.34*	0.24	0.05
OCP9	-0.16	-0.11	0.01	*0.71*	0.12	-0.17	0.03	-0.04	0.17
OCP10	*0.38*	-0.33	0.14	0.02	0.14	-0.02	0.18	-0.02	-0.04

Items	1	2	3	4	5	6	7	8	9
OCP11	0.05	0.27	*0.36*	0.15	-0.15	-0.18	0.11	0.14	*0.38*
OCP12	-0.02	-0.27	*0.51*	0.08	-0.06	-0.13	-0.05	0.11	0.05
OCP13	0.26	-0.01	*0.61*	0.00	-0.06	0.12	-0.02	-0.10	0.05
OCP14	0.23	-0.12	-0.04	*0.51*	-0.18	0.04	0.00	0.15	-0.16
OCP15	-0.17	-0.05	0.22	-0.17	-0.13	-0.18	-0.05	-0.52	0.22
OCP16	*0.46*	-0.23	0.05	-0.05	-0.11	-0.03	-0.10	-0.26	0.16
OCP17	0.14	0.01	-0.09	0.16	-0.01	0.00	0.07	-0.74	-0.07
OCP18	0.23	-0.06	0.16	0.06	0.05	-0.11	0.17	-0.30	0.13
OCP19	0.15	-0.47	-0.06	0.13	0.09	-0.17	-0.20	-0.23	-0.02
OCP20	-0.11	0.14	0.06	*0.83*	0.00	0.01	-0.04	-0.12	0.03
OCP21	0.06	-0.05	-0.10	0.07	-0.23	-0.61	0.01	-0.07	-0.01
OCP22	0.24	-0.03	0.15	0.22	-0.16	0.03	0.05	-0.33	0.06
OCP23	*0.59*	-0.04	0.15	0.13	-0.17	0.04	-0.13	-0.09	-0.07
OCP24	*0.62*	0.12	-0.10	-0.01	0.01	-0.44	-0.03	0.14	0.15
OCP25	*0.56*	0.11	0.17	-0.06	-0.03	-0.11	0.04	-0.23	0.03
OCP26	-0.07	0.10	-0.18	-0.02	-0.02	-0.07	*0.86*	-0.09	0.06
OCP27	-0.04	0.07	0.18	0.11	-0.04	-0.63	0.15	0.09	-0.05
OCP28	-0.07	-0.19	-0.01	0.00	-0.77	-0.03	0.14	-0.07	-0.17
OCP29	0.06	-0.10	-0.09	-0.02	0.05	-0.69	-0.09	-0.15	-0.10
Variance (%)	**20.36**	**5.33**	**5.02**	**4.60**	**4.17**	**4.02**	**3.87**	**3.68**	**3.63**

Oblique rotation yielded nine factors having Eigen value more than one, and these nine factors explained 54.7% of total variance in the data set. However, apart from the seven items (item number 1, 4, 8, 10, 18, 22 and 24) that exhibited cross loading in case of orthogonal rotation, two more items exhibit cross loading (item number 2 and 11) this time. Nevertheless, factor scores were computed without any deletion of items, and then these nine factors were subjected to further factoring, using principal components analysis with varimax rotation. Table 17 provides the result of second order factor analysis.

Table 17: Second order factors using factor scores

Variables*	1	2	3
REGR factor score 1	*0.41*	*-0.37*	0.05
REGR factor score 2	-0.15	*0.44*	*-0.31*
REGR factor score 3	*0.37*	*-0.36*	0.17
REGR factor score 4	*0.61*	-0.12	*0.31*
REGR factor score 5	*-0.62*	0.02	0.08
REGR factor score 6	-0.19	*0.59*	-0.02
REGR factor score 7	-0.09	0.02	*0.90*
REGR factor score 8	0.13	*0.81*	0.15
REGR factor score 9	*0.61*	-0.06	-0.11
Variance explained	**22.31 %**	**11.56%**	**11.23%**

* These first order factors are different from the ones reported from table 10 to table 15.

Examination of scree plot suggested extraction of just one second order factor. However, three second order factors emerged when the criterion of Eigen value being more than one was employed. Using the conventional criterion for determining cross loading mentioned earlier (Stamper and Masterson, 2002: 884), it can be seen from table 17 that factors 1, 2 and 3 show problematic cross loadings. Table 17 also shows that the third second-order factor is explained almost entirely (81%) by the factor 7 which consists of the only negatively worded items (item 26). However, second higher order factor is meaningful, with factors 6 and 8 loading highly on it. The remaining three first order factors (4, 5 and 9) load highly on the first factor.

To summarize the results of higher order factor analysis, following points can be noted.

- While assessing the use of summated scales for higher order factoring, it emerged that sub-scales do not exhibit adequate discriminant validity, while showing strong convergent validity. This result suggested that these sub-scales measure very similar (or perhaps a single) concept. Higher order factor analyses results lend support to this conclusion.
- Summated scale is the most preferred way of using factor analysis results for further statistical analysis (Ford et al., 1986). And the emergence of a single second order factor (in principal component analysis using summated scales) justifies the combined treatment of items of summated scales as representing a single latent construct.
- Higher order factoring using factor scores yields three second order factors having Eigen value being more than one, of which the third factor appears to be an artifact. But scree plot suggests extraction of only one factor, thereby suggesting a single dominant second order construct.

Hence the final scale consists of all the twenty remaining items (after deleting one factor and seven cross loading items). The summated score on these twenty items is used for further validity assessment.

Reliability of Various Scales

Table 18 gives the reliability (Cronbach alpha) of the various scales used for validity assessment.

Table 18: Reliability of various scales

Construct	Number of Items	Number of Observations	Reliabilit
Organizational citizenship	20	317	0.76
ORB	17	323	0.88
In-role Behavior	7	327	0.50
Anti-OCB	12	323	0.79
Chinese OCB	7	328	0.88
Altruism	7	322	0.64
Interpersonal Facilitation	7	325	0.68
Job Dedication	8	325	0.78

Absenteeism was measured using a single item, hence its reliability is not reported. Table 18 shows that three constructs (in-role behavior, altruism and interpersonal facilitation) exhibited unsatisfactory reliability, i.e., less than 0.7 (Nunnally, 1978, as quoted in Hair et al., 1998).

Validity Results

Table 19 provides the summary statistics for constructs used in validation.

Table 19: Summary statistic of measure

Construct	Mean	S.D.
Organizational citizenship performance	3.93	0.48
Job Dedication	4.08	0.60
Interpersonal Facilitation	4.04	0.59
Altruism	3.41	0.69
Chinese OCB	6.35	1.14
Anti-OCB	1.44	0.45
In-Role Behavior	4.30	0.48
ORB	1.40	0.46
Absenteeism	1.73	0.99

All the mean values are significantly above zero. The following sections describe the results of convergent and discriminant validity assessment.

Convergent Validity

Table 20 shows the correlation between OCP and other constructs used for convergent validity.

Table 20: Convergent validity results

Construct	Correlation with OCP	Significance Level
Chinese OCB (Two "emic"	0.02	0.71
Altruism Dimension of OCB	0.46	0.00
Interpersonal Facilitation	0.55	0.00
Job Dedication	0.51	0.00

Only Chinese OCB does not correlate significantly with OCP, all other constructs show quite significant and high correlation, thus suggesting convergent validity. Regarding Chinese OCB, the possible reason for low correlation is negative wording of items. As the only negatively worded item of OCP scale consistently formed a separate factor, it is possible that all negatively worded items are forming artifactual factors. Otherwise, these items may be truly emic to Chinese society.

Discriminant Validity

Table 21 shows the correlation between OCP and other constructs used for discriminant validity.

Table 21: Discriminant validity results

Construct	Correlation with OCP	Significance
Organizational Retaliatory Behavior	-0.12	0.03
In-role Behavior	0.39	0.00
Anti OCB	-0.09	0.09
Absenteeism	-0.13	0.02

The above results show satisfactory discriminant validity for OCP scale. ORB and absenteeism are negatively correlated with OCP. However, correlation between OCP and anti-OCB is not significant at 5% level. Also, this correlations is significantly less than the correlation reported between OCB and anti-OCB (-0.6) by Ball et al. (1994). In-role behavior is significantly correlating with OCP, contrary to expectation. But correlation found here is lower than the correlations between in-role behavior and two dimensions of OCB (0.55 and 0.52) reported by Williams and Anderson (1991: 610). Table 22 provides the difference between OCP and in-role behavior (IRB) correlation in this study and correlations between in-role behavior and two dimensions of OCB.

Table 22: Comparison with previous IRB-OCB correlations

Construct	Correlation Difference	Sig.
OCB Individual	0.13	0.06
OCB Organization	0.16	0.03

The above results (Table 22) add to discriminant validation support, as both correlation differences are almost significant. Discriminant validation can be further assessed by comparing OCP-IRB correlation with the correlations between OCP and constructs employed for convergent validation. Table 23 shows the results of this comparison.

Table 23: Comparison with convergent validation correlations

Construct	Correlation Difference	Sig.*
Altruism	0.07	0.10
Job Dedication	0.12	0.01
Interpersonal Facilitation	0.16	0.00

*One tailed test.

Table 23 shows that except for altruism, correlations between OCP and two contextual performance dimensions are significantly higher than OCP-IRB correlation. Thus discriminant validation gets further support.

Discussion

This study developed a scale for organizational citizenship performance. As no precise definition of OCP was found in literature, a new definition was developed followed by item generation from literature and practitioners. The combined pool of items was subjected to content validation and selected items went to pilot testing. In the pilot study, items showing non-significant item-total correlation and significant correlation with social desirability scale were excluded from main survey.

Main survey aimed to refine the scale and assess its construct validity and reliability. Accordingly, it included other constructs to assess convergent and discriminant validity. Three alternatives were tried while factor analyzing the OCP scale. A single factor solution was forced. However, this single factor explained only 20.4 % of total variance. Hence this solution was considered unacceptable. Further factor analysis extracted nine factors having eigenvalue more than one and explained 54.7% of total variance. However, one of these factors could not be meaningfully interpreted, and seven items showed problematic cross loadings. Deletion of these items and problematic factor resulted in a scale of twenty items with eight factors. The third alternative tried was to conduct a higher order factor analysis, using summated scales as well as factor scores. This analysis provided evidence for a single higher order latent construct, thus justifying the combined treatment of all items as a single construct.

Validity assessment revealed satisfactory convergent validity and discriminant validity for the OCP scale. The new scale has reliability of 0.76, which is satisfactory according to the guideline provided by Nunnally (1978, as quoted in Hair et al., 1998). Thus it can be concluded that OCP scale has adequate psychometric properties.

Two issues are noteworthy here.

a. The low reliabilities of individual sub-scales can be attributed to the smaller number of items. This is consistent with what has been reported by Hinkin (1995). Another reason could be the diversity in the respondents' profile. Respondents came from at least 32 different organizations working on a wide range of issues in rural as well as urban areas. Such a heterogeneous sample increases the chances of varying response pattern.
b. As reported elsewhere, negatively worded items often form an artifactual factor (Hinkin, 1995, Idaszak and Drasgow, 1987). Results of this study confirm this finding, as the single negatively worded item consistently formed a separate factor.

Limitations

This study suffers from following limitations.

a. As the response for all variables were taken from single source using single method, common source and single method variances pose a threat to the findings.
b. Low reliability of in-role behavior, altruism, interpersonal facilitation forms another limitation.
c. Test for stability of the scale has not been done.
d. The response format (a Likert-type scale) given to judges for content validation of items deviated from the convention of employing a yes/no format. However, it is similar to the procedure of item selection adopted by Puffer (1987), wherein supervisors' ratings of frequency and importance of behavioral items on a seven point Likert-type scale were used to select items for scale construction.

Likely Benefits

Following are the likely benefits of this study.

a. For Research: This study fills the gap of developing a scale of organizational citizenship performance in Indian context.

b. For Practice – This scale will be useful for measuring organizational citizenship performance in NGOs. A modified version of this scale is expected to be useful for measuring organizational citizenship performance in other Indian organizations as well.

Future Research Issues

Further assessment of the psychometric properties of newly developed OCP scale is an obvious agenda for future research. Such assessment should avoid the common source common method variance problem. Some theoretical issues also require further research attention. Clearer distinction between task and contextual performance is one such issue.

A closer scrutiny of some items in the new OCP scale reveals that such behaviors may be guided by citizenship in general (like comforting beneficiaries during riots or earthquakes, motivating them for overall development, etc.) Hence, examination of differences between citizenship behaviors guided by membership to an organization and membership of wider society warrants further attention. Similarly, organizational citizenship performance towards organizational members and towards outsiders needs be distinguished.

Appendix 1 – Scale of Organizational citizenship performance

Item No.	Item
1	Within my work-team, I tried not to let formal hierarchy (of team members) hinder the work.
2	I tried to create a cheerful atmosphere at workplace.
3	I tried to ensure proper identification of poor for benefit distribution.
4	While telling something unpleasant to other people in the organization, I took care so as not to hurt their feelings.
5	I participated regularly in events that lead to team bonding; for example, going together on outings, having joint reading sessions, etc. with coworkers.
6	I empathetically listened to problems of other people in this organization.
7	I motivated a colleague to go for further studies/skill building that would enhance his/her work-related capacity and help him/her in career.
8	I comforted and consoled clients or villagers during crisis like riots/earthquake, etc.
9	I took feedback on my work from my coworkers.
10	I helped coworkers on issues other than their work; for example, helped a colleague in putting up a case with consumers' court when a doctor wrongly diagnosed him with a serious disease and it caused his family a lot of tension, etc.
11	If outsiders had any misconceptions about this organization, I clarified it, even though it was not my explicit duty.
12	I tried to improve the safety of working conditions (like arranging for shoes, other necessary equipment, etc.) by talking to suitable people/higher authorities in this organization.
13	I tried to initiate events that lead to team bonding; for example, going together on outings, having joint reading sessions, etc. with coworkers.
14	I tried to motivate beneficiaries (villagers or target group of my NGO) for overall development, even though this was not my explicit duty.
15	I tried to motivate a junior or new colleague.
16	I discussed any perceived harm from outsiders to this organization with suitable people/higher authorities of this organization.
17	I did not give credit to coworkers/juniors before supervisor for some good work done by them. ®
18	I encouraged silent members to speak up in meetings/trainings/workshops, etc.
19	I took care to respect local norms and customs; for example, not sitting when elder people were standing, or not smoking in front of elder villagers/clients, etc.
20	I tried to facilitate meetings with villagers/clients in such a way that even weaker members could speak, still not making stronger members feel offended (for example, when a Sarpanch was describing various problems of his/her area, I intervened and suggested that the representative of that particular area should describe the problems).

Appendix 2 – Items of OCP Used in Main Survey

Item No.	Item
1	I tried to help other people in this organization deal with life events/trauma.
2	Within my work-team, I tried not to let formal hierarchy (of team members) hinder the work.
3	I tried to create a cheerful atmosphere at workplace.
4	I proudly shared a good performance/work of my team with supervisors/suitable people in this organization.
5	I tried to ensure proper identification of poor for benefit distribution.
6	While telling something unpleasant to other people in the organization, I took care so as not to hurt their feelings.
7	While on duty/tour, etc., I tried to use cheaper facilities (transport, hotels, etc.) to save organizational resources.
8	I treated clients/villagers as equal human beings, by doing such things as offering chair or water when they visited the office of this organization.
9	I participated regularly in events that lead to team bonding; for example, going together on outings, having joint reading sessions, etc. with coworkers.
10	I sacrificed my own leaves when too many employees were absent.
11	I empathetically listened to problems of other people in this organization.
12	I motivated a colleague to go for further studies/skill building that would enhance his/her work-related capacity and help him/her in career.
13	I comforted and consoled clients or villagers during crisis like riots/earthquake, etc.
14	I took feedback on my work from my coworkers.
15	I helped coworkers on issues other than their work; for example, helped a colleague in putting up a case with consumers' court when a doctor wrongly diagnosed him with a serious disease and it caused his family a lot of tension, etc.
16	If outsiders had any misconceptions about this organization, I clarified it, even though it was not my explicit duty.
17	I tried to improve the safety of working conditions (like arranging for shoes, other necessary equipment, etc.) by talking to suitable people/higher authorities in this organization.
18	When my coworkers had personal or work-related problems, I counseled them.
19	I went and talked to coworkers who were in a bad/sullen mood.
20	I tried to initiate events that lead to team bonding; for example, going together on outings, having joint reading sessions, etc. with coworkers.
21	I tried to motivate beneficiaries (villagers or target group of my NGO) for overall development, even though this was not my explicit duty.
22	I tried to get conflict between my coworkers resolved.
23	I tried to motivate a junior or new colleague.
24	I suggested improvements in ways of doing things, even though it was not my explicit duty.
25	I discussed any perceived harm from outsiders to this organization with suitable people/higher authorities of this organization.
26	I did not give credit to coworkers/juniors before supervisor for some good work done by them. ®
27	I encouraged silent members to speak up in meetings/trainings/workshops, etc.
28	I took care to respect local norms and customs; for example, not sitting when elder people were standing, or not smoking in front of elder villagers/clients, etc.
29	I tried to facilitate meetings with villagers/clients in such a way that even weaker members could speak, still not making stronger members feel offended (for example, when a *Sarpanch* was describing various problems of his/her area, I intervened and suggested that the representative of that particular area should describe the problems).

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