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5 **Abstract**

6 The evolution and improvisation of globally distributed work teams (GDWT) over the past 20
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8 software outsourcing has created a workforce that operates across geographical boundaries of
9 place and time. The Indian software industry has a competitive advantage which includes
10 availability of qualified and talented manpower at low costs as compared to other developing
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16 distributed work teams (GDWT) over the past 20 years has been the key enabler for the stellar growth of
17 the Indian IT industry. Global software outsourcing has created a workforce that operates across geographical
18 boundaries of place and time. The Indian software industry has a competitive advantage which includes
19 availability of qualified and talented manpower at low costs as compared to other developing economies (Budhwar,
20 Luthar, & Bhatnagar, 2006a; Budhwar, Varma, Singh, & Dhar, 2006b). In addition, globally distributed teams
21 play a significant role in improving strategic responses by reducing delivery time and working 24X7 on projects.
22 This paper is a study of the various kinds of distributed teams in the Indian IT industry and the unique human
23 challenges experienced by them. In this study, we look into the characteristics of distributed teams that pose
24 challenges to team performances. The onsite-offshore model invented by the Indian software industry requires
25 that 20-30 % of the team work onsite at the client organization. Since customers of the Indian software industry
26 are mostly located in North America and Europe, onsite postings create opportunities to visit a foreign country
27 as well as the opportunity to save substantially. In addition, onsite postings create opportunities to develop
28 domain expertise and customer management skills. Hence, onsite postings are perceived as a reward and software
29 professionals look forward to them. When software professionals in a team perceive that the selection for onsite
30 postings are not fair and equitable, they experience inequity (Agrawal, Khatri and Srinivasan, 2010, forthcoming).
31 The socio-cultural contexts of multiple locations influence the worklife balance for members. The proximity to
32 customers is a source of power for onsite members but is also a source of conflict between onsite-offshore team
33 members. Among distributed teams the efficacy of a role gets partly defined by location and hence is looked
34 at as an injustice perceived by team members. In addition, team members from different organizations work
35 together in a distributed team and the treatment received by them may differ. Relationships between onsite
36 and offshore team members are characterized by asymmetries in knowledge and experience, which often become
37 the cause of potential misunderstanding ??Vlaar et al. 2008). It has been found that those who perceive fair
38 treatment exhibit high levels of citizenship behaviour (Moorman, ??lakely & Niehoff, 1998; ??asterson et al.,
39 2000; ??oorman & Bryne;.

40 It is in this context that the paper examines organizational variables which influence perceptions of justice
41 among distributed teams in the software industry. A Introduction ow does unfair treatment experienced by
42 offshore or onsite employees affect employee behavior? If experiences of injustice are recounted will it alter
43 colleagues' attitudes and behaviors? And if employees "compare notes" in the way people are treated in the
44 workplace, will a shared consensus emerge regarding justice issues, and will that consensus affect the attitudes and
45 behaviors of the overall unit? Each of these questions acknowledges that human aspects cause justice perceptions
46 in collective contexts -i.e what happens to one employee may depend on (and influence) others. Questions
47 raised by Jason A. Colquitt, Cindy P. Zapata-Phelan and Quinetta M. are critical to our understanding of the
48 justice phenomena among distributed software development teams. Although people contribute to a project

1 THEORETICAL FOUNDATION

49 as individuals, the prevailing justice climate, processing of justice experienced across onsite or offshore teams
50 (Salancik & Pfeffer, 1978) and the impact of such experiences create either commitment or resentment at the
51 workplace, which in turn impacts the growth and sustenance of the organization.

52 An employee from one of the largest Indian IT companies experienced depression as he received a lower than
53 expected performance rating from his onsite manager. While his direct / off shore manager was very happy and
54 appreciated his exemplary performance, with an "Exceeded Expectation" in his annual performance accompanied
55 by an appreciation note whereas his onsite manager's rating was "met expectation," due to which the employee
56 was eligible for just a marginal salary increase. The only recourse the employee had was to question the accuracy
57 of the evaluation stating that the onsite manager was not present for long enough periods to accurately monitor
58 and gauge performance. Another visibly disturbed employee expressed anguish over the lack of information
59 exchanged between off shore and onsite managers on the assignment and roles assigned to him. The employee
60 took the matter to his delivery manager. The delivery manager refused further explanation as he thought that it
61 would create precedence. He also justified his inaction stating that the onsite manager's rating was in congruence
62 with people contributing from onshore.

63 In circumstances like this, what is left behind is a host of unanswered questions. What will be the reaction
64 of the employee? This study tries to explore various reactions of employees given the exposure of a one-sided
65 approach by management based on organizational justice literature (Colquitt, Greenberg & Zapata-Phelan, 2005).
66 The established norms of the industry are that performance rating is a consultative process with all stakeholders involved. As the onsite manager, has no regard for rating offshore managers (disrespectful and insolent),
67 employees begin to develop doubts about distributive justice and the fairness of decision-making. Distributive
68 justice is fostered when outcome allocations adhere to relevant norms, such as equity (Adams, 1965; Homans,
69 1961; Leventhal, 1976). Concerns have also been raised about procedural justice, and are linked to the perceived
70 fairness of decision making procedures. Procedural justice is fostered when procedures are consistent across
71 persons and time, based on accurate information, unbiased and correct (Leventhal, 1980), and afford individuals
72 voice and control during the process (Thibaut & Walker, 1975). In addition, when employees believe that
73 grievances are not handled properly, in terms of dignity and respect shown (interpersonal justice) justifications
74 and explanations offered (informational justice) (Bies & Tripp, 1986; Greenberg, 1993) are inconsequential.

75 A similar experience of both distributed employees (onsite and offshore) create a sense of insecurity and makes
76 them think on the following:

77 ? Onsite managers are unaware of the tasks performed by offshore members ? Onsite-offshore interfaces do
78 not work in the organization ? Information sharing and trust between onsite and offshore is not visible. More
79 research on the subject goes to explain that the differences between distributed and conventional teams go further
80 than merely the lack of face-to-face interaction within a distributed team, ?ell & Kozlowski (2002). These
81 experiences evoke a series of workplace responses leading to behavioral outcomes. The perception of justice leads
82 to workplace attitudes; including job satisfaction, organizational commitment, and trust in the leader (Colquitt,
83 Conlon, Wesson, Porter & Ng, 2001). Employees in such a scenario think of alternate options like onsite postings,
84 quitting the job, opting for job rotations etc. In addition such employees develop a negative attitude towards the
85 organization reflected in behaviors of lowered task performance, low citizenship behavior, and counterproductive
86 or withdrawal behaviors (Colquitt et al., 2001). It also increases stress and depression for the employee. Jason
87 A. Colquitt et al, 2001, further explains that such employees intentionally violate rules or standards, and waste
88 time on the job.

89 In this study, we explore various circumstances under which a person operates within the prevailing climate of
90 the organization and how such circumstances lead to justice perceptions. There are several reasons why members
91 at the workplace feel procedural, distributive, interactional and informational justice perceptions. By seeking to
92 extend the logic of the perception of organizational justice between onsite versus offshore members this paper
93 exposes the human

94 1 Theoretical Foundation

95 Teams are inevitably an important part of global IT organizations. Complex software development demands
96 employees to be collaborative and interdependent. Since dispersed teams face high uncertainties due to members
97 not being familiar with the task on hand or other members, the chances of human factors contributing to
98 misgivings in distributed work is more. This makes this study uniquely well-suited contextually to investigate
99 the impact of the perception of organizational justice on team performance. Team performance is discussed in
100 three different angles. The first is what are the human characteristics that influence shared perception? What
101 makes teams perceive organizational justice and what makes an effectively performing team. The human factors
102 create interdependencies which are complex in nature. These difficulties are compounded when the characteristics
103 of the task and the team context make it difficult for team members to effectively manage these interdependencies
104 (Malone & Crowston 1994). To be effective, team members need to carry out competently their "task work"
105 activities -necessary to execute the task -and "teamwork" activities -necessary to work with each other (Klimoski
106 & Mohammed 1994). In this context, the nature and process of team work needs to be understood to help us deal
107 with the performance of the team. The following three pillars of distributed work are explained to help offer a
108 perspective on the subject. a) Human Aspects collocated team operates out of the same geographical location and
109 hence organizational climate is the same. However, distributed team members operate out of different locations

111 and heavily rely on trust and communication. Human aspects consist of various interactions and exchanges
112 that enhance or reduce justice perceptions of people. In a multi-locational organization, highly accomplished
113 employees are given international assignments. An employee is expected to travel frequently ??Black, 1988)
114 and establish business, extend cooperation, develop systems and processes and bench mark the new organization
115 with that of the parent organization. These employees experience greater job overload, greater external pressures,
116 and greater visibility. They experience a high degree of role clarity, as compared to ambiguity faced by their
117 domestic counterparts. These experiences lead to negative affectivity to the organization (Naumann, 1992; Bedeian
118 and Armenakis, 1981; ??yons, 1971). Doing business through distributed teams involve managing a bundle of
119 individuals, organizational and social issues. These issues form part of the critical factors for managing an
120 effective organization. Imbalances experienced or felt in the way these issues are managed cause perceptions
121 of organizational justice and impact work outcomes. Given below is a review of the theoretical foundation on
122 human factors that are critical to distributed work teams.

123 **2 b) Asymmetry of skills**

124 Team members perform different roles. The roles include customer connecter, business analyst, architect,
125 technical lead, designer, coder, tester and product maintenance person. As performing tasks of each role is
126 different, difference between members crop up at every stage of development. While project team members are
127 identified and assigned tasks based on their skill, competencies required to perform the given task may vary from
128 person to person. Not knowing or being familiar about the team members hampers the progress of the project.
129 Velez et al, 2004 found that in remote collaborations, role asymmetry combined with platform heterogeneity
130 impacts collaboration. Asymmetry of skills, assigned tasks and time to deliver has to go hand in hand. However,
131 in most cases, since skill and competency levels are not known in distributed work teams, deliverables are delayed
132 resulting in customer fury.

133 **3 c) Team dispersion**

134 The size of the team is an important phenomenon which determines perceptions and behaviors. In many cases,
135 uneven distribution of team members causes psychological gaps. Development team are collocated either onsite
136 or offshore and the sales, implementation, and maintenance personnel are

137 **4 d) Geographic dispersion**

138 Another important dimension in distributed working is geographic dispersion of employees. Since project demands
139 are generated in one geographical location and the same is delivered at another location, every team member
140 has to work to complete the given tasks despite differing time zones, language barriers, culture differences,
141 expectations and quality standards. Though distributed members may not be familiar with the task or team
142 they are working with, they are expected to work on the same page with the same quality standards.

143 These three factors put together influences most of the organizational, individual and socio-cultural aspects
144 of the globally distributed work teams.

145 **5 Moderating Aspects**

146 A distributed team members' employment status has a great deal of influence on member's attitude to
147 organization. This includes member being on direct company roll versus contract or consulting roll, deputation
148 period being short term versus long term etc., the distinction between contract and permanent employees
149 is studied in the context of job design of IT software development personnel by Ang and Slaughter (2001)
150 supports the argument that employment status is an important motivator consistent performance. They believe
151 that supervisors tend to restrict the scope of contract employees' jobs leading to a low perception of the job
152 environment. The advantages of permanent employees are as follows:

153 ? Proximity to the project manager is very high for a permanent employee ? A permanent employee has
154 the closer attention of the organization as they share employee benefits, processes and help them participate in
155 management

156 ? Lesser chances of frequently changing locations ? Long period of service

157 ? High level of job security is experienced ? A permanent employee can make choices out of

158 ? various roles and can move in the career ladder of the same company. Further from a social exchange theory
159 perspective IT contract employees have lower positive attitudes and behaviors as it is based on the specifics of
160 social exchange relationships and norms of reciprocity. The results from the study indicate that organizations
161 should carefully design and balance the job of contractors and permanent employees.

162 An outsourced employee is an external resource as against permanent employee who is an internal source.

163 ? An outsourced employee does not have access to various resources of the company as against a permanent
164 employee ? Outsourced employees are bound by the contracting company as against permanent employees.

165 ? Salary and rewards given by contracting company are the same and given by the employee's company. ?

166 Employment is restricted by time as against no such limitation ? Group bonding is less as against strong
167 group bonding ? No opportunity for long term training as against regular chances of getting such opportunities

168 The above differences cause relationship barriers between employees and the organization and hence different

10 I) SIZE OF RESPONDING ORGANIZATIONS AND SURVEY PARTICIPATION BY INDUSTRY

169 perceptions of organizational justice are evident. Product engineering teams predominantly handle technology
170 and innovation activities as against regular client specific development handled by application development teams.
171 Preferential treatment like salary variations, higher incentives, high value training and onsite assignments make
172 the application development team look up to the technology team and yearn to join the team. There is a high
173 level of selfesteem experienced by PE employees. Research further argues that "Procedural justice influences
174 management evaluations, job satisfaction, and perceived conflict more than distributive justice"-Alexander and
175 Ruderman ??1987). Differences on being more inclusive, high job satisfaction, pride of innovating a product
176 creates imbalances in the working atmosphere and hence the feeling of the lack of fairness.

177 6 f) Perception of organizational justice

178 Managing software development in a distributed environment is a mammoth task as it involves complexities. A
179 project has many tasks such as coordination, relationship management, requirement capturing, coding, designing,
180 architecting, managing, testing, integrating and implementing etc.; some tasks can be handled by individuals while
181 others have dependencies. Some activities need periodic interaction with other members while other activities
182 need

183 The Human Aspects of Globally Distributed Work Teams in the Indian IT Industry: Effect of Justice
184 Perception on Team Performance interaction with the same people. For example, a developer has to design
185 according to the architect's dictates and hence regularly interacts with his technical lead and architect in shaping
186 the project. A project manager has to give regular updates to the client explaining the progress. Even team
187 member, at times interact with the customer. Each of these activities have different patterns of interaction
188 resulting in different types of outcome. Members use email, chat rooms, fax, and phone, audio and video
189 conferences for exchanging information relevant to their projects despite meeting clients face to face during visits
190 to onsite locations. A distributed work environment is conceptualized as being composed of social, technical,
191 resources, and organizational environment. Every project is associated with either an offshore or an onsite
192 team. A member might have several constraints operating from their respective locations which develop due
193 to individuals, organizations or the managers. From an organization point of view the constraints faced while
194 operating globally distributed teams needs customized solutions to each member. A large company operating
195 in many locations has difficulties in managing multiple issues. While dealing with these issues the organization
196 needs to keep in mind that the software development industry works primarily on human capital.

197 7 g) Team Performance

198 Human beings have organized themselves into teams since squads of cavemen surrounded and killed mammoths.
199 The best teams are passionate about their work -and you can't forge or force that kind of spirit. It bubbles up
200 from within the hearts, souls and minds of team members. However, as a manager, you can create the emotional
201 conditions from which passion will emerge. These include trust, sharing, camaraderie, commitment, common
202 purpose and confidence. When you promote the secondconditions, you set the stage so that team members can
203 worktogether with enthusiasm to accomplish their goals. Organizations throughout the world have increasingly
204 adopted team-based work structures. H C Devasagayam, 2013 states that half of the Fortune 500 use formal
205 work teams in some part of their operations, 85% of Fortune 1000 firms employ some element of group-based
206 compensation, studies of managersshow that they spend 30 to 80 precent of their time in team meetings and a
207 Fortune 500 financial services company found that their average executive spent two out of every five working
208 days collaborating with small groups claims Todd Harris (2008).

209 Katzenbach and Smith (2003) define five different types of teams and their relation to each other in overall
210 performance. The dispersed members interact primarily to share information, best practices, or perspectives and
211 to make decisions to help each individual perform within his or her area of responsibility.

212 8 III. Research Methods

213 This exploratory investigation asked managers of distributed teams from across the world to provide their first
214 hand experiences of how justice is perceived in their teams and what kind of an impact is felt as a result

215 The Human Aspects of Globally Distributed Work Teams in the Indian IT Industry: Effect of Justice
216 Perception on Team Performance

217 9 h) Respondent Profile

218 The survey respondents were based in 70 countries (Figure ??2)

219 10 i) Size of Responding Organizations and Survey participation by Industry

221 The largest group of respondents (48%) represented organizations with businesses in consulting and serviceswith
222 more than 1, 00,000 employees. The next largest group (40%) was from organizations in engineering and products
223 with less than 10,000 employees. Together, they constituted 88% of the survey participants. Representatives
224 of mid-sized companies (1,000 employees) constituted the remaining 12% of respondents from telecom solutions

225 (Figure ???.3). at all project levels. The interviews were in both individual and group formats and most were in
226 person. The interviews were semi-structured and conversational in nature, and covered a range of topics related
227 to the human aspects of distributed teams, perception of organizational justice and performance outcomes.

228 **11 III.**

229 **12 Results and Interpretation**

230 Future business is expected to be more and more virtual and distributed, with "distributed teams" as its key
231 element. As trade breaks geographical barriers and businesses span across countries, location loses its relevance
232 as an important criterion while business priorities assume greater importance. Global organizations have learned
233 to operate through distributed teams for cost, competency and time advantages. Human aspects form part of
234 managerial challenges that include but are not limited to fulfilling client needs, keep the distributed team (onsite
235 and offshore) on the same page, their innovationspirit alive (local and remote peers), quicklyrespondtorequested
236 changes (in spite of time zone differences), create andmonitor collaborative processes (bridging cultural gaps),
237 keep the teams equally motivated (constantly remove trust defciencies), be a connecting point for communication,
238 respond to changing styles, provide timely responses to the changing needs of skills and capability and be an
239 inspiration to the team. The present study covers these challenges found in globally distributed organizations
240 and corroborates it withprevious research on the subject.

241 Given below is the respondents rating of the varioushuman aspects found to be key to the team performance.

242 **13 Figure 1.6 : Human aspects important to team performance**

243 **a) Key Findings**

244 The human factors found in globally distributed work teams have a direct correlation with the perception of
245 organizational justice and team performance outcomes. Hence, when members find that organizations have pro-
246 employee policies and are sensitive to the needs of employees, in spite of the person being part of collocated
247 or distributed teams,they experience a sense of support and develop affective commitments to the organization
248 resulting in greater team performance. At the same time when they find that the organization is ignoring them
249 and not bothered about the needs of team members, the

250 The Human Aspects of Globally Distributed Work Teams in the Indian IT Industry: Effect of Justice
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252 To confirm respondents distributed experience, we asked participants on how many times they were part of
253 distributed teams and if they were part of a team with people based in different locations (onsite, offshore and
254 hybrid). Forty four percent (44%) of respondents indicated that they were part of distributed teams more than
255 once and fifty six percent (56%) of the participants indicated that they were part of distributed team once in
256 their careers.

257 Location of the distributed team was ascertained by asking the participants as to whether they were part of
258 onsite, offshore or hybrid teams.

259 The present study includes interviews, visits and observations. Thus, the project was carried out in a
260 Participatory Action Research (Whyte 1990) frameworkin that it was hoped that the findings of the project
261 would be beneficial to knowledge workers, management, and organizations in terms of developing better
262 relationships among distributed team members resulting in higher attention given to the human aspects of
263 their workplace. At the time the participants were interviewed, each worked in different cities and countries.
264 This representation helped ensure the research patterns reported represented diverse experiences in distributed
265 environments. Interviews were conducted with personnel members leading to resentment and the lack of interest
266 in the project.

267 ? Mana gers not open to discussing difficulties faced byteam members make teams dissatisfied. ? Trust deficit
268 can bring d own the customer confidence as employees don't work in a coherent and logical manner resulting in
269 delayed and distorted deliverables. ? Absence of customized communication between team members increases
270 anxiety and distrust. ? Work-Family propinquity positi vely contributes to team performance Peer pressure
271 negatively motivates and leads to higher employee attrition ? The lesser the practice of gender discrimination,
272 the greater is the sense of perceived organizational injustice ? Cultural differences will have a negative impon
273 team performance The greater the job rotation, the lesser will be the dissatisfaction of not getting selected
274 for onsite assignments ? The greater the insensitivity of the manager, the higher the possibility of employee
275 attrition ? Organizations practicing un-friendly policies and processes are most likely to face greater attrition
276 Organizations have established dedicated department to deal with issues arising out of onsiteoffshore coordination
277 and transactions. The global HR team or shared services team is yet another attempt to address specific issues
278 arising out of inadequacy of information between onsite and offshore. However, so far organizations have been
279 handling HR issues of distributed team on a case to case basis as members ar e distributed to different countries
280 and each country is influenced by its own legal and cost issues. The project manager too handles HR issues
281 at times if no exclusiveHR person is available to the team. Shared Services is diametrically different from the
282 outsourcing model where an external third party is paid to provide a service that was previously internal to the
283 buying organization, typically leading to redundancies and reorganization. There is an on-going debate about

17 B) HUMAN ASPECTS AND PERCEPTION OF ORGANIZATIONAL JUSTICE

284 the advantages of Shared Services over outsourcing. A large scale cultural and process transformation can be a
285 key component of a move to Shared Services and may include redundancies and changes of work practices. One
286 purpose of Shared Services is the convergence and streamlining of an organization's functions to ensure that
287 they deliver to the organization the services required of them as effectively and efficiently as possible. This
288 often involves the centralizing of back office functions such as HR and Finance but can also be applied to the
289 middle or front offices. A key advantage of this convergence is that it enables the appreciation of economies of
290 scale within the function and can enable multi-function working (e.g. linking HR and Finance together), where
291 there is the potential to create synergies. Shared Services are more than just centralization or consolidation of
292 similar activities in one location. Shared Services can mean running these service activities like a business and
293 delivering services to internal customers at a cost, quality and timeliness that is competitive with alternatives.
294 Organizations that have centralized their IT functions have now begun to take a close look at the technology
295 services that their IT departments provide to internal customers, evaluating where it makes sense to provide
296 specific technology components as a shared service. E-mail and scanning operations were obvious early candidates;
297 many organizations with document-intensive operations are deploying scanning centres as a shared service. Job
298 rotation is yet another method suggested by many participants. Job rotation for onsite assignment will reduce
299 discontentment among other engineers who wait for an onsite opportunity. Even for this we need to lay down
300 certain processes which goes well with any type of business.

301 14 b) Propelled Research Model

302 The information collected through primary sources and derived support from the previous research on the subject
303 proposes the following model. This study looks into two critical factors of human factors and team performance of
304 globally distributed work teams. The focus of this study is to understand the level of human factors in distributed
305 organizations and its impacts on team performance perceived either positively or negatively. This focus enables
306 understanding important factors that contribute to performance in distributed teams. This study covers a

307 The Human Aspects of Globally Distributed Work Teams in the Indian IT Industry: Effect of Justice
308 Perception on Team Performance perceived support is less, leading to the feeling that they are not needed
309 and they begin to resent the situation. This sentiment is found in the results of the study. Given below are some
310 of the premises made from the primary data corroborated by the existing study on the subject.

311 ? Leader-Member Exchange enhances member influence on team decisions and improve performance. ?
312 Asymmetry of skill demotivates members and leads to reduced team performance. ? Conflict on allocated tasks,
313 relationship or processes followed have a negative influence on

314 15 Discussion and Conclusion

315 Distributed teams are an essential component of a knowledge based economy. Katzenbach and Douglas (1999),
316 defines team as "a small number of people with complementary skills who are committed to a common purpose,
317 performance goals, and approach for which they hold themselves mutually accountable." IT industry's success
318 story synchronizes with the spread of teams making products and services relevant to a larger market. Whether an
319 organization is small or large, what is important is that the fundamentals of human interactions and perceptions
320 are kept alive to keep the team excited. Multinational organizations develop captive centers, offshore centers,
321 onsite support teams, and partnerships with a set of specialist consultants to build success stories. Globally
322 distributed teams pursue the same project goals, but they work from different locations ??Oshri et al., 2008).
323 This paper aims to explore the human factors (inter and intra organization) in globally dispersed work teams
324 and the impact of these factors on team performance.

325 16 a) Workflow process in distributed work

326 In a distributed environment, organizations with a base in India (offshore) sets up a project office at or near the
327 customer site (onsite). Once a project is sourced, the need of the project determines the kind of people to be
328 located at the customer site and at the development center. Project scoping is done by either onsite coordinators
329 or a technical lead or project lead. The scope is further analyzed to develop an environment suitable for technology
330 and functionalities. Subsequently the onsite team works on detailed project requirements and critical parts of the
331 system, as well as a preliminary development plan and budget. Later, the offshore team work on detailed designs,
332 coding, unit testing, integration, and system testing—generally in a series of subprojects representing major parts
333 of the system or components being built. Eventually, the offshore development team brings the completed system
334 back to the customer located onsite for final acceptance testing and iterates as required to get the final details
335 right. It is expected that the entire distributed members are on the same page during and after completion of
336 the project. People involved in development are distributed based on availability, skills, cost, interaction with
337 customers and delivery time. The program or project manager coordinates effective delivery of the project from
338 different locations and plays an active role in integrating components into one whole project.

339 17 b) Human Aspects and perception of organizational justice

340 In managing a software project, unlike collocated teams, a distributed team begins the process by identifying
341 suitable members for the team. While there are many competent members available in the organization, a

342 manager uses a list of criteria for selecting the most suitable candidate for filling onsite vacancies. Technical skill
343 and capability, domain knowledge and prior experience are a few of them. Competitions for overseas assignments
344 are high as these assignments are beneficial. Thus many ask: why not me? From the organizations point of
345 view sending the most suitable candidate may not happen as the ideal candidate may not opt for an onsite
346 assignment for reasons of the type of work among other reasons. People avoid onsite assignments even due to
347 family commitment and personal reasons. Many members with a strong technical background don't want to go
348 on onsite assignments as they consider it less challenging technically than the long term research oriented offshore
349 work. Members defer onsite assignments as they fear losing their offshore jobs on their return. As offshore is
350 where the actual technology development happens for an organization and the identity evolves for an individual,
351 many refuse to go on onsite assignments. A member states "I have never been fascinated to go on an onsite
352 assignment as most of the niche, technically challenging work happens at Bangalore where I work". A latest
353 research finding by HC Devesagayam, 2013 on the subject, discusses the phenomena at length and brings out the
354 following inconsistencies in distributed working. whodelivers what and the capability of each member involved
355 in the project. These gaps can be damaging and affect the perception of onsite-offshore relationships whether it
356 impacts the individual, the organization, or society at large.

357 **18 c) Justice perception**

358 Global software development has become the norm of the day as it compliments global requirements better than
359 any other available system. However, emerging global teams have so many challenges in delivering a value suitable
360 to global requirements. These challenges are caused by certain factors perceived within the organizational frame
361 work. The challenges of managing a distributed team such as geographical, political, environmental and legal
362 areintegrated into organizational challenges form part of the perceptual frame work for a distributed member.
363 More the globally distributed environment is accepted by organizations, people and systems; the better the
364 resolution of the problem of distributed working. In this study, we investigate various human factors which include
365 organizational (ethics and work values), individual (interactions and exchanges) and contextual (sociocultural)
366 factors. The study does not undermine the contextual factors such as geographical, legal, racial and, linguistics
367 but include them as socio-cultural factors in different forms and features. Review of literature on justice leads to
368 many emotional outcomes leading to affective or negative organizational behavior. In this research, we correlated
369 the human factors prevalent in team performance.

370 If organizations with distributed teams could give equal importance to thesecritical factors, there could be an
371 improvement in the way teams perform.

372 **19 e) Compensation not matching peers**

373 While onsite members make good money their offshore salary increases are very little with a lot of variations and
374 generally in single digits. A person on return from an onsite assignment has a salary 30% less than his colleagues
375 offshore. Managers need to balance this problem. The result of this difference is that he either quits his job or
376 starts fighting with the organizations management. Even if the maximum amount of work on a project is done
377 offshore and offshore members are more talented the career growth for offshore members is much less.

378 **20 f) On the bench**

379 The experience of am member is related as: Due to the lack of projects I have been kept on the bench for the
380 past 3 months and in my appraisal I have been given two points. Currently our company is giving pink slips to
381 people rated as two. I have been asked to remained offshore have been given continuous projects and not asked
382 to leave the company.

383 **21 h) Preferential treatment**

384 Hostility and incongruity develop between people working onsite and their offshore counter parts resulting in the
385 onsite members being ignored on their return. This causes them to become depressed. To avoid this organization
386 must have a clear onsite career path that maps to the offshore career path. Thus any resource switching over
387 from offshore to onsite or viceversa can transition effectively and smoothly.

388 **22 i) Limitations of this research**

389 This qualitative study is limited to distributed team performances from the information technology industry.
390 However, since distributed teams are common across the globe in various business lines, the same principle
391 of working in a multi-cultural environment is relevant to similar circumstances. The various control variables
392 have not been treated as part of the study. Control variables might have an important role to play in members
393 perceiving organizational fairness (H C Devasagayam, 2013). The sample takes into account selected countries but
394 does not take into account distributed employees spread across many other countries where employee perceptions
395 could be different.

23 Conclusion

397 The globe is expanding as custom made products and services are available at their respective location, in their
399 country and at their price. But the fact that people who develop these products or provide services are human
400 beings with unique needs is conveniently ignored. As a result, the perception of being treated equally is
401 imbalanced. If organizations take into account and give sufficient attention to human factors and evolve methods
402 to strengthen and improve perceptions of fairness, better team performances can be expected and at times
403 guaranteed. resign from my company as the company cannot afford to retain me on the bench for more than 3
404 months.

24 g) Stranded Offshore career

405 Onsite returned members are not given leadership positions, or promotions. Members remain as technical
406 contributors until the manager is convinced about the person's capability-Whereas peers who have ^{1 2}

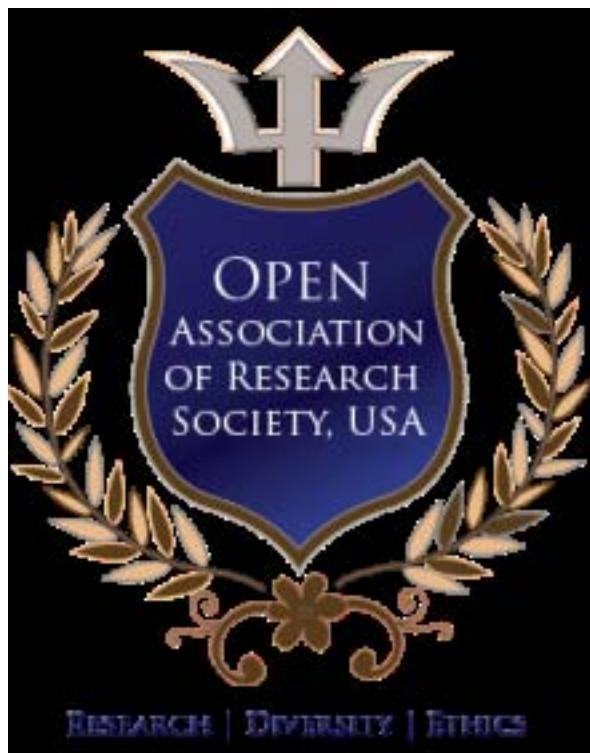


Figure 1: The)

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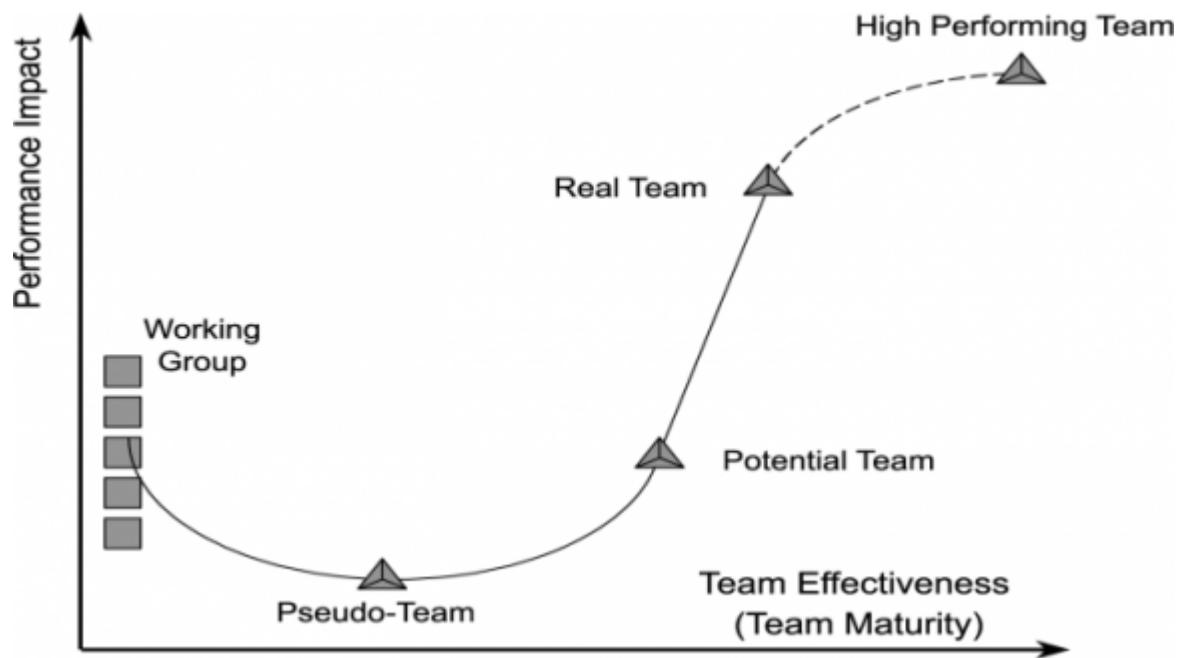
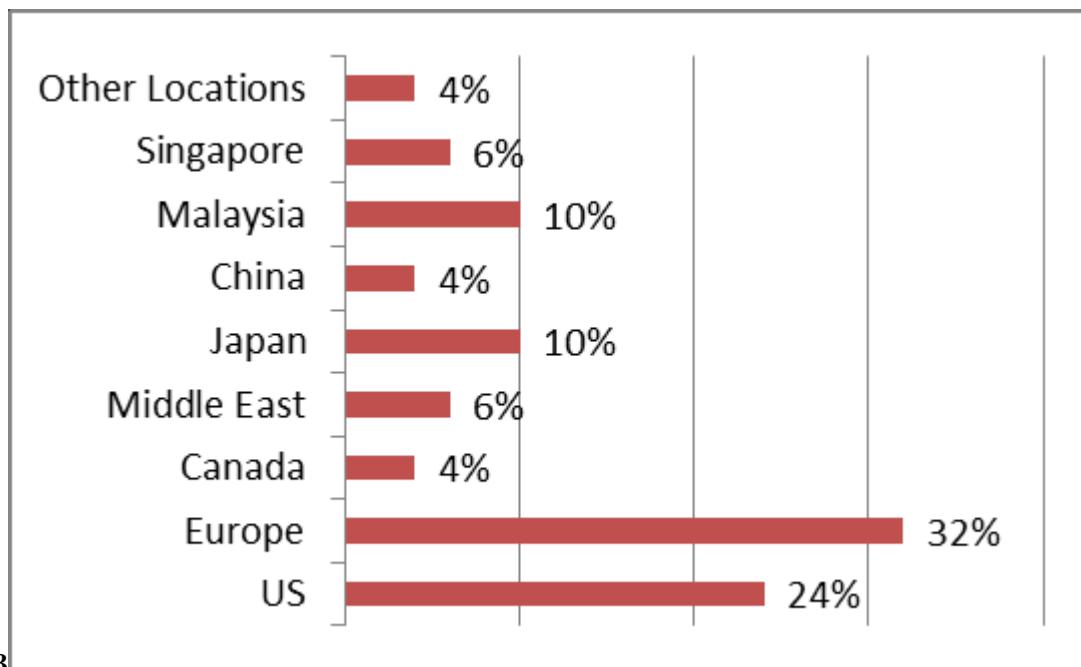


Figure 2:



13

Figure 3: 13 Global

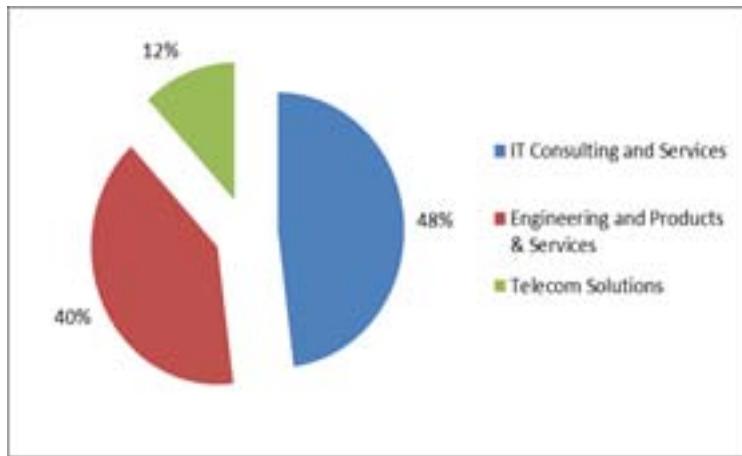


Figure 4:

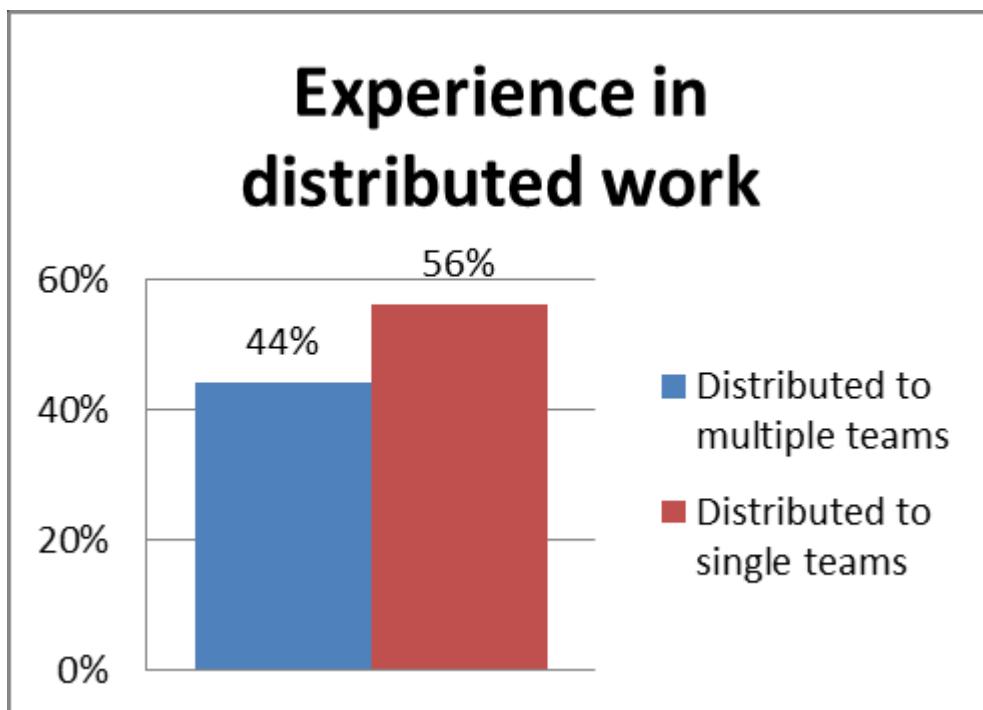


Figure 5:

Figure 6: ?

408 [Review of Industrial and Organizational Psychology] , *Review of Industrial and Organizational Psychology* 14
409 p. .

410 [Bies and Moag ()] , R J Bies , J F Moag . 1986. (Interactional justice)

411 [Naumann ()] 'A conceptual model of expatriate turnover'. E Naumann . *Journal of International Business
412 Studies* 1992. 23 (3) p. .

413 [Organ and Ryan ()] 'A meta-analytic review of attitudinal and dispositional predictors of organizational
414 citizenship behavior'. D W Organ , K Ryan . *Personnel Psychology* 1995. 48 p. .

415 [Organ and Paine ()] *A new kind of performance for industrial and organizational psychology: Recent contribution
416 to the study of organizational citizenship behavior*, D W Organ , J B Paine . 1999. (International)

417 [Bedeian and Armenakis ()] 'A pathanalytic study of the consequence of role conflict and ambiguity'. A Bedeian
418 , A Armenakis . *Academy of Management Journal* 1981. 24 p. .

419 [Salancik and Pfeffer ()] 'A socialinformation processing approach to job attitudes and task design'. G R Salancik
420 , J Pfeffer . *Administrative Science Quarterly* 1978. 23 p. .

421 [Beehr and Kozlowski ()] 'A typology of virtual teams: Implications for effective leadership'. T A B S Beehr
422 , S W J Kozlowski . *Group & Organization Management* 1995. 2002. 27 p. . (Psychological Stress in the
423 Workplace.London: Rout ledge Bell)

424 [Herbsleb and Mockus ()] 'An empirical study of speed and communication in globally distributed software
425 development'. J D Herbsleb , A Mockus . *IEEE Transactions on Software Engineering* 2003. 29 (6) p. .

426 [Ang and Slaughter (2001)] Ang , Slaughter . *Work Outcomes and Job Design for Contract versus Permanent
427 Information Systems Professionals on Software Development Teams*, 2001. Sep., 2001. 25 p. .

428 [Fitzgerald et al. (1997)] 'Antecedents and consequences of sexual harassment in organizations: A test of an
429 integrated model'. Louise F Fitzgerald , Fritz ; Drasgow , Charles L Hu Lin , Michele J Gelfand , Vicki J
430 Magley . *Journal of Applied Psychology* Aug 1997. 82 (4) p. .

431 [Herbsleb and Grinter ()] 'Architectures, coordination, and distance: Conway' sl aw and beyond'. J D Herbsleb
432 , R E Grinter . *IEEE Software* 1999b. 16 (5) p. .

433 [Schneider et al. ()] *Arlequin: A software for population genetics data analysis*, S Schneider , L Roessli , Excoffier
434 . 2.000. <http://lgb.unige.ch/arlequin/> 2000. Genetics and Biometry Lab, Dept. of Anthropology,
435 University of Geneva

436 [Maznevski and Chudoba ()] 'Bridging Space Over Time: Global Virtual Team Dynamics and Effectiveness'. M
437 Maznevski , K Chudoba . *Organization Science* 2001. 11 (5) p. .

438 [Jarvenpaa and Leidner ; 791815jarvenpaa ()] 'Communication and trust in global virtual teams'. S L Jarvenpaa
439 , D E Leidner ; 791815jarvenpaa . *Organ. Sci* 1999. 2004. 10 (6) .

440 [Communication criteria of fairness Researo Negotiations in Organizations] 'Communication criteria of fairness'.
441 *Researo Negotiations in Organizations* 1 p. .

442 [Giebels and Janssen ()] 'Conflict stress and reduced wellbeing at work: The buffering effect of third-party help'.
443 E Giebels , O Janssen . *European Journal of Work and Organizational Psychology* 2005. 14 p. .

444 [Vlaar et al. ()] 'Coping with Problems of Understanding in Interorganizational Relationships: Using Formal-
445 ization asa Means to Make Sense'. P W L Vlaar , Van Den , F A J Bosch , H W Volberda . *Organization
446 Studies* 2006. 27 p. .

447 [Greenberg ()] 'Determinants of perceived fairness of performance evaluation'. J Greenberg . *Journal of Applied
448 Psychology* 1986. 71 p. .

449 [Lewicki and Bunker (ed.) ()] *Developing and Maintaining Trust in Work Relationships*, Roy J Lewicki , Barbara
450 Benedict Bunker . Roderick M. Kramer and Tom R. Tyler (ed.) 1996. Thousand Oaks, Calif: Sage
451 Publications. (Trust in Organizations)

452 [Black ()] 'development and evaluation of broad coverage of probabilistic grammar of English language computer
453 manuals'. Black . *proceedings of the 30 th annual meeting of Association of computer linguistics*, (the 30 th
454 annual meeting of Association of computer linguistics) 1992. (Pages-185-192, Network Delaware)

455 [Shaffer et al. ()] 'Dimensions, determinants, and differences in the expatriate adjustment process'. M A Shaffer
456 , D Harrison , M Gilley . *Journal of International Business Studies* 1999. 30 p. .

457 [Mcfarlin and Sweeney ()] 'Distributive and procedural justice as predictors of satisfaction with personal and
458 organizational outcomes'. D Mcfarlin , P Sweeney . *Academy of Management Journal* 1992. 2013. 35 (3) p. .

459 [Gregersen and Black ()] 'Expatriate Performance Appraisal in U.S.. Multinational Firms'. H B Gregersen , J S
460 Black . *Journal of International Business Studies* 1996. 27 p. .

461 [Shaffer and Harrison ()] 'Expatriates' psychological withdrawal from international assignments: Work, non-
462 work, and family influences'. M A Shaffer , D A Harrison . *Personnel Psychology* 1998. 51 p. .

463 [Carmel ()] *Global software teams: Collaborating across borders and time zones*, E Carmel . 1999. Englewood
464 Cliffs, NJ: Prentice Hall.

465 [Greenberg et al. (ed.) ()] J Greenberg , B J Alge . *Dysfunctional behavior in organizations, Part A: Violent
466 behaviors in organizations*, R W Griffin, A O'leary Kelly, J Collins (ed.) (Greenwich, CT) 1998. JAI.

467 [Griffiths ()] 'How scientists conceptualise genes: An empirical study'. Griffiths . *Studies in History & Philosophy
468 of Biological and Biomedical Sciences* 2004. 35 (4) p. .

469 [Adams ()] 'Inequity in social exchange'. J S Adams . *Advances in experimental social psychology*, L Berkowitz
470 (ed.) (New York) 1965. Academic. 2 p. .

471 [Jarvenpaa et al. ()] 'Is anybody out there?: The antecedents of trust in global virtual teams'. S L Jarvenpaa ,
472 K Knoll , D Leidner . *J. Management Inform. Systems* 1998. 14 (4) p. .

473 [Colquitt et al. ()] 'Justice at the millennium: A meta-analytic review of 25 years of organizational justice
474 research'. J A Colquitt , D E Conlon , M J Wesson , Porter Co , L H Ng , Ky . *Journal of Applied Psychology*
475 2001. 86 p. .

476 [Colquitt et al. ()] *Justice in Teams: A Review of Fairness Effects in Collective Contexts*, Jason A Colquitt ,
477 Cindy P Zapata-Phelan , Quinetta M Roberson . 2005. p. .

478 [Janz et al. ()] 'Knowledge worker team effectiveness: The role of autonomy, interdependence, team development,
479 and contextual support variables'. B D Janz , J A Colquitt , R A Noe . *Personnel Psychology* 1997. 50 p. .

480 [Folger and Bies ()] 'Managerial responsibilities and procedural justice'. R Folger , R J Bies . *Employee
481 Responsibilities and Rights Journal* 1989. 2 p. .

482 [Colquitt ()] 'On the dimensionality of organizational justice: A construct validation of a measure'. J A Colquitt
483 . *Journal of Applied Psychology* 2001. 86 p. .

484 [Crapanzano and Folger ()] 'Organizational Citizenship Behavior of Distributed Teams: A Study on the
485 Mediating Effect of Organizational Justice in Software Organizations'. R Crapanzano , R Folger . *International
486 Journal of Scientific & Engineering Research* R. M. S teers and 26. Devasagayam HC. (ed.) 1991. 2012. 4 (1)
487 p. . (Procedural justice and worker motivation)

488 [Guzzo et al. ()] 'Potency in groups: Articulating a construct'. R A Guzzo , P R Yost , R J Campbell , G P Shea
489 . *British Journal of Social Psychology* 1993. 32 p. .

490 [Yang et al. ()] 'Procedural justice climate and group power distance: An examination of cross-level interaction
491 effects'. J Yang , K W Mosholder , T K Peng . *Journal of Applied Psychology* 2007. 92 p. .

492 [Thibaut and Walker ()] *Procedural justice: A psychological analysis*, J Thibaut , L Walker . 1975. Hillsdale, NJ:
493 Lawrence Erlbaum Assoc.

494 [Sweeney and Mc Farlin ()] 'Process and outcome: Gender differences in the assessment of justice'. P D Sweeney
495 , D B Mc Farlin . *Journal of Organizational Behavior* 1997. 18 p. .

496 [Olkkinen and Lipponen ()] 'Relationships between organizational justice, identification with organization and
497 work unit, and group-related outcomes'. M.-E Olkkinen , J Lipponen . *Organizational Behavior and Human
498 Decision Processes* 2006. 100 p. .

499 [Scandura and Lankau ()] 'Relationships of gender, family responsibility and flexible work hours to organizational
500 commitment and job satisfaction'. T A Scandura , M J Lankau . *Journal of Organizational Behavior*
501 1997. 18 p. .

502 [Roberson and Colquitt ()] 'Shared and configural justice: A social network model of justice in teams'. Q
503 Roberson , J A Colquitt . *Academy of Management Review* 2005. 30 p. .

504 [Roberson and Colquitt ()] 'Shared and configural justice: A social network model of justice in teams'. Q M
505 Roberson , J A Colquitt . *Academy of Management Review* 2005. 30 p. .

506 [Homans ()] *Social behavior: Its elementary forms*, G C Homans . 1961. New York, NY; Harcourt, Brace, &
507 World.

508 [Erlbaum 17. Cramton, C. D., P. Hinds (ed.) ()] *Subgroup dynamics in internationally distributed teams: Ethnocentrism or cross-national learning?*, Erlbaum 17. Cramton, C. D., P. Hinds (ed.) 2005. Mahwah, NJ. p. .
509 (the handbook of organizational justice. Research in Organizational Behavior 26231-263)

510 [Klimoski and Mohammed ()] 'Team Mental Model: Construct or metaphor'. R Klimoski , S Mohammed .
511 *Journal of Management* 1994. 20 (2) p. .

512 [Caligiuri et al. ()] 'Testing a theoretical model for examining the relationship between family adjustment and
513 expatriate work adjustment'. P M Caligiuri , M M Hyland , A Joshi , A S Bross . *Journal of Applied
514 Psychology* 1998. 83 p. .

515 [Brockner and Adsit ()] 'The moderating impact of sex on the equity-satisfaction relationship: A field study'. J
516 Brockner , L Adsit . *Journal of Applied Psychology* 1986. 71 p. .

517

518 [Aryee et al. ()] *The motivation to mentor among managerial employees in the maintenance career stage: An*
519 *interactionist's perspective*. *Group & Organization Management*, S Aryee , Y W Chay , J Chew . 1996. 21 p.
520 .

521 [Alexander and Ruderman ()] 'The role of procedural and distributive justice in organization behavior'. S
522 Alexander , M Ruderman . *Social Justice Research* 1987. 1 (2) p. .

523 [Katz and Kahn ()] *The social psychology of organizations*, D Katz , R L Kahn . 1978. New York, NY: John
524 Wiley and Sons. (2nd Ed)

525 [Colquitt et al. (ed.) ()] *What is organizational justice?*, J A Colquitt , J Greenberg , C P Zapata -Phelan . A
526 historical L. W. Porter (ed.) 2005. 2010. New York: McGraw-Hill Culture Wizard. (Motivation and Work
527 Behavior. Report on virtual teams)

528 [Leventhal ()] 'What should be done with equity theory? New approaches to the study of fairness in social
529 relationship'. G S Leventhal . *Social exchange: Advances in theory and research*, K Gergen, M Greenberg, &
530 R Willis (ed.) (Morristown, NJ; New York) 1976. 1980. Plenum Press. p. . (Contemporary topics in social
531 psychology)

532 [Tremaine et al. ()] 'Who's in Charge Here?'. A Tremaine , B Sarcevic , A Dorohonceanu , I Krebs , Marsic .
533 *Communicating Across Unequal Computer Platforms*. *ACM Trans. CHI* 2004. 11 (4) p. .