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Organizational rewards: considering employee need in allocation

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Abstract

Purpose – The purpose of this study is to investigate how employee need relates to rewards and employee perceptions of fairness within an organization in the USA using a pay-for-performance system.

Design/methodology/approach – To evaluate the presence of a relationship between employee need and reward allocation in a pay-for-performance system, a questionnaire was administered to a sample of 292 employees from two departments at an academic medical center.

Findings – The findings highlight the positive relationship between employee need and reward allocation that remains when controlling for employee performance evaluation ratings. Findings further show that employee communication with the manager about need explains this relationship.

Research limitations/implications – The findings make two important contributions to research on reward allocation and performance management. First, the results show employee need is related to the allocation of rewards in organizational settings outside of collectivistic cultures or developing countries. Second, by demonstrating the role of employee communication with managers about need within the relationship between employee need and reward allocation, the paper provides a more detailed understanding of additional factors related to compensation decisions in a pay-for-performance system.

Originality/value – Little research has explored the relationship between employee need and reward decisions at an individual level in organizational settings within individualistic cultures. The findings from this study address this gap by establishing the presence of this relationship in a pay-for-performance reward-based organization with service-based values. This finding is timely due to the current economic downturn experienced by organizations, and thereby the level of employee need observed in Western individualistic cultures.

Keywords Performance management, Quantitative, employee need, Performance rewards, Reward allocation

Paper type Research paper

Allocating rewards in a systematic manner is crucial to ensure that employees perceive pay decisions as fair and equitable (Fischer and Smith, 2003; Stone *et al.*, 2007). However, what constitutes a fair pay decision may depend on a multitude of factors. Research in cross-cultural psychology suggests that culture, based on Hofstede's (1980) cultural model, can influence what is perceived as a fair pay allocation system (Gelfand



et al., 2007; Sama and Papamarcos, 2000). In collectivistic cultures, values of interdependence and in-group harmony generally facilitate a preference towards equality or need-based reward allocation (Stone *et al.*, 2007). Conversely, in individualistic cultures, pay-for-performance systems are implemented with the express goal of allocating rewards according to the equity principle or based on performance (Barber and Simmering, 2002; Bohet and Eaton, 2003; Gully *et al.*, 2003).

However, Fischer and Schwartz (2011) found that differences between individuals within a culture account for a greater portion of the variation in value systems than differences between countries. Indeed, a wide variety of studies have demonstrated that individual, contextual and organizational factors have a greater influence on the values governing reward allocation decisions than the prevailing culture norms, such as the prevalence of the equity principle in collectivistic national cultures or the use of need to allocate rewards in individualistic national cultures (Chen, 1995; Chen *et al.*, 1998; Evans *et al.*, 2010; Fischer and Smith, 2003; Giacobbe-Miller *et al.*, 2003; Kim *et al.*, 1990; Tower *et al.*, 1997). These factors may, in turn, influence perceptions of fairness regarding the way decisions are made or rewards are allocated (Barrett-Howard and Tyler, 1986). For example, in a cross-cultural study of participants rating the use of three allocation principles, Fischer (2004) found that participants from Great Britain perceived that their organizations relied on need as a basis for reward allocation to a greater extent than participants from West Germany. At the time of the study, the economic situations in both countries were hypothesized to explain this relationship.

Together, the extant research suggests that there are often inconsistencies between cultural values and reward allocation norms within countries (Gelfand *et al.*, 2007; Lam *et al.*, 2002). Thus, more attention is needed as to how individual, contextual and organization factors influence reward allocation decisions, particularly when those values conflict with prevailing cultural norms (Fischer and Smith, 2003; Fischer *et al.*, 2007). Of particular importance in the current economic times is the impact of employee need on reward allocation although relatively little research has explored the relationship of need with reward decisions in organizational settings of individualistic cultures (Bohet and Eaton, 2003; Hundley and Sanchez, 2008). Drawing on cross-cultural organizational research, the current study seeks to address this gap in the literature by examining the role of employee need in the decision to allocate rewards in a service-oriented organization within an individualistic culture, wherein awarding additional pay has traditionally been based on the equity principle (i.e. pay-for-performance).

Theoretical background

Cross-cultural differences in reward allocation

Generally, three criteria influence the allocation of rewards:

- (1) equity;
- (2) equality; and
- (3) need (Deutsch, 1975; Leventhal, 1976).

Many cross-cultural studies have identified the values that govern the social behaviors of large groups of people, like a nation or a specific population. In cross-cultural comparisons of allocation norms, individualistic countries generally distribute rewards on an equity basis, defined as an individual's contribution or work effort (Stone *et al.*,

2007; Triandis, 1994). Supporting these findings is the prevalence of pay-for-performance systems in individualistic countries, like the UK and the USA (Bohet and Eaton, 2003; Brown and Reich, 1997). Past research has shown those in individualistic countries support a value system that emphasizes competitiveness and a focus on one's self (Triandis and Suh, 2002). In comparison, other studies have shown support for a preference towards equality or need-based allocation in collectivistic cultures (Bond *et al.*, 1982; Sama and Papamarcos, 2000). For example, in Indonesia, need is viewed as a fair basis for allocation, where it is suspected resource scarcity may heighten this preference (Murphy-Berman and Berman, 2002).

Some researchers have noted individualism and collectivism may be better suited to explain the influence of value systems on social behaviors at a cultural level, where nations are the unit of analysis (Earley and Gibson, 1998; Triandis and Suh, 2002). At the individual and group level, other factors may influence the values that dictate a person's choice in social behaviors. Past studies have demonstrated the use of a need or equity allocation norm when the prevailing cultural norms conflicted with giving rewards based on these criteria (Bozionelos and Wang, 2007; Evans *et al.*, 2010; Fischer, 2004; Matsumoto *et al.*, 1996). In these instances, individual and contextual factors had a larger influence on the criterion used to allocate rewards (Evans *et al.*, 2010; Gelfand *et al.*, 2007). Individual factors can include individual-group differences (Tindale and Davis, 1985) and relationships between in-group and out-group members (Leung and Bond, 1984; Tower *et al.*, 1997; Zhang and Yang, 1998), while contextual factors may include goal orientation (Chen, 1995; Barrett-Howard and Tyler, 1986) and economic considerations, such as government policy (Fischer, 2004; Giacobbe-Miller *et al.*, 1998; Giacobbe-Miller *et al.*, 1997).

Furthermore, the influence of national cultural values on criterion to allocate rewards may be compounded by other factors, such as the values of the organization's culture and in-group membership (Chiang and Birtch, 2005; Mannix *et al.*, 1995; Triandis, 1994). For example, Mannix *et al.* (1995) found organizational cultures with business objectives beyond profitability, such as personal development and relationship-building among employees, were more likely to use non-equity criterion to allocate rewards. Therefore, the culture within the organization may then outweigh the culture within the country.

Given the economic trends experienced by the USA over the past several years, and within group differences in individual, contextual and organization factors influencing values, inconsistencies between national values and individual decisions are likely to continue. In companies with altruism or service as a business objective rivaling profitability, values in the organization's culture may contrast those of the national culture such that additional or different allocation norms are considered in the distribution of rewards (Chiang and Birtch, 2005; Mannix *et al.*, 1995). That is, these issues suggest need may serve as a criterion in the decision to allocate rewards in individualistic cultures, though organizations are structured with pay-for-performance systems.

Furthermore, the presence of need as an allocation norm for rewards has scarcely been examined outside of homogenous populations of students or employees who participate in controlled, laboratory settings. Meeker and Elliott (1998) demonstrated the relationship between employee need and performance evaluations in a laboratory study while two experimental studies by Steinber *et al.* (2006) found support for need

as a consideration in allocation decisions by both American and French undergraduates. The authors of both studies (Meeker and Elliott, 1998; Steinber *et al.*, 2006), as well as others, have called for further exploration of this relationship in organizations with pay-for-performance structures in individualistic cultures (Evans *et al.*, 2010; Fischer, 2004; Fischer *et al.*, 2007). Thus, the focus of the present study is an examination of the relationship between employee need and rewards allocated at an individual level within a service-oriented organization set in an individualistic culture.

- H1.* Employee need will be positively related to reward allocation. Specifically, employees with greater need are likely to be those who receive larger rewards.

Employee communication

The literature on leader-member exchange (LMX) has consistently demonstrated the importance of managerial concern for people (Yukl, 1994), as illustrated by the employee behavioral and attitudinal outcomes achieved through the quality of these relationships (Gerstner and Day, 1997; Major *et al.*, 1995; Sparrowe and Liden, 1997). In reference to employee need, several studies have found that high-quality LMX relationships lead to better work-life balance and job outcomes, such as lower levels of stress (Anderson *et al.*, 2002; Golden, 2006; Hsu *et al.*, 2008; Major *et al.*, 2008). Previous research also suggests that high-quality LMX relationships are characterized by better, more frequent communication between the leader and the employee (Kacmar *et al.*, 2003; Yrle *et al.*, 2002). This type of communication strengthens trust within the manager-employee relationship (Dirks and Ferrin, 2002; MacKenzie, 2010; Ruppel and Harrington, 2000). To the extent that employees exchange information related to their needs with their manager, this exchange may result in the manager reciprocating with understanding and empathy (Scandura *et al.*, 1986).

Although we are primarily interested in the relationship between employee need and reward allocation, we argue that employee communication of their needs to managers is essential in order for them to respond to that need. Thus, those employees who communicate more with their managers regarding their need may receive more favorable outcomes as compared to those employees who communicate less with their managers about their circumstances. Drawing these relationships together, we propose employee need will be positively related to employee communication with their manager about need and, in turn, will be positively linked to the rewards allocated.

- H2.* Employee communication with their manager about need will positively relate to reward allocation. Employees who communicate with their manager about need will be those who receive larger rewards.
- H3.* Employee communication with their manager about need will mediate the relationship between employee need and reward allocation, such that the positive relationship between employee need and reward allocation will be explained by the extent of communication about need between an employee and the manager.

Reward allocation and employee perceptions of fairness

Perceived fairness in the distribution of rewards is an important determinant to employee satisfaction, as demonstrated in both Western organizational research and cross-cultural comparisons (DeConinck and Stilwell, 2004; Hundley and Kim, 1997;

Kim *et al.*, 1990). However, the basis for perceived fairness can vary due to prevailing cultural norms of the larger organization (Morris and Leung, 2000; Sama and Papamarcos, 2000). People in cultures governed by collectivistic values (e.g. interdependence, in-group harmony) perceive the allocation of rewards based on need or equality to be equitable because such decisions emphasize the group's well-being and the importance of relationships (Stone *et al.*, 2007). Conversely, equity-based allocation is congruent with the values of individualistic cultures (e.g. independence and competitiveness) that emphasize the self and thereby should be perceived as fair (Stone-Romero and Stone, 1998, 2001).

The social-exchange psychological model can explain fairness perceptions based on procedural justice, such that concerns for relationships or group status influence perceptions of what's fair (Barrett-Howard and Tyler, 1986; Tyler, 1994). Evaluating procedural justice with a relational base suggests factors beyond prevailing cultural norms influence perceptions of what is fair. Indeed, studies in the social justice literature have identified factors that influence the values governing resource allocation decisions and whether those decisions are seen as fair (McFarlin and Sweeney, 2001; Rasinski, 1987; Shapiro and Tinsley, 2001). For example, Rasinski (1987) surveyed participants to evaluate how individual value orientations, defined as proportionality and egalitarianism, varied when considering the employee perceptions of fairness of general government practices. His results suggest differences in social justice perceptions vary as a result of a person's individual values.

In pay-for-performance systems, a merit increase represents a reward to be allocated (Chien *et al.*, 2010). Because our study evaluates whether employee need is present as an important criterion in reward allocation, it becomes necessary to explore how this consideration in the decision-making process impacts employees' perceptions of fairness. To the extent that employee need relates to the decision to allocate rewards in an individualistic context where historically equity has been assumed as the basis for perceptions of fairness, it becomes necessary to more fully understand the relationships among the study variables. Thus, the secondary reason underlying our present research is to replicate past research showing a positive relationship between reward allocation and fairness (i.e. perceptions of procedural justice). We base our definition of fairness on procedural justice since it has often been shown that people's perceptions of the awards they receive are more fair when the procedures underlying these decisions are seen as fair (van Dijke *et al.*, 2009), consequently resulting in higher levels of job performance, such as tasks performed (Chien *et al.*, 2010). Specific to our study, we propose that rewards allocated based on need will be perceived as fair in an individualist context.

H4. Reward allocation will be positively related to employee perceptions of fairness. Employees who receive greater rewards will be those who also perceive the reward allocation procedures as more fair.

Based on past research, we know that performance alone does not fully explain the extent of rewards allocated within different cultures (Renaud and Laporte, 2009; Stone *et al.*, 2007), and allocation based on need has been demonstrated in developing countries, in cross-cultural comparisons, and possibly in individualistic countries, given within group differences of contextual and organizational value systems and changes in predominant cultural values (Evans *et al.*, 2010; Sama and Papamarcos,

2000). This study serves to explore how employee need may relate to the allocation of rewards in a service-based organization of an individualistic culture with a pay-for-performance compensation structure. Within the exploration of this relationship, we will also examine how employee communication with their manager about need and employees' perceptions of fairness relate to these variables. By including employee need and the role of communication in the study of reward allocation, we seek to provide a more complete and potentially complex view of the relationship between rewards, performance and employee perceptions of fairness in individualistic cultures, as shown in the model presented in Figure 1.

Method

Participants and procedure

To evaluate the presence of a relationship between employee need and reward allocation, a questionnaire was administered to a sample of 292 employees from two departments at an academic medical center in Houston, Texas. Because research in the USA has not typically focused on the relationships of interest in the present study, we focused on a department typically found in other organizations (the human resources department) to increase the generalizability of these results to other organizations. Furthermore, we wanted to ensure that the results were not specific to one department, so an additional department (the Police Department) in the organization was chosen.

Questionnaires, in paper format, were distributed to employees in each department. As part of the study's questionnaire, employees were asked to provide information about their needs, past performance and rewards received. The recall method employed in the present study followed a similar procedure to past research in this area (Fischer, 2004). In addition to these questions, employees were asked to indicate their perceptions of fairness and communication with their manager about need. The survey included detailed instructions on returning completed surveys. Specifically, to maintain confidentiality of the surveys, a locked drop box was set up in a communal area within each department for their return.

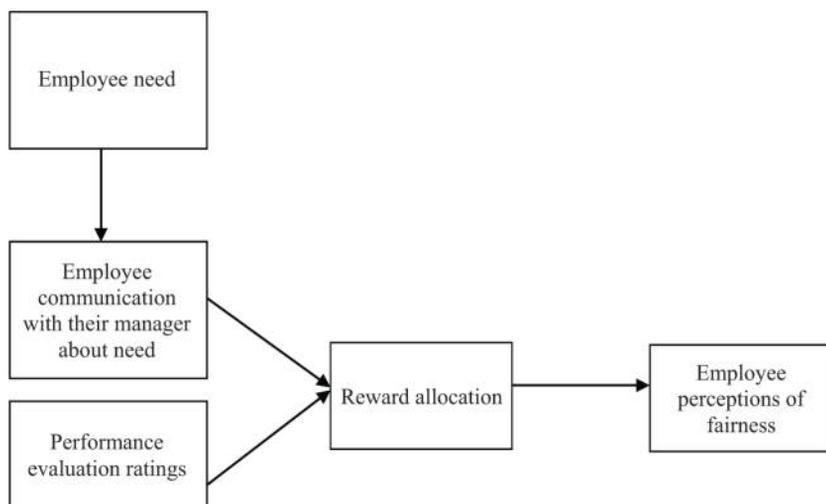


Figure 1.
Model showing the hypothesized relationships between study variables

Of the 144 employees from the human resources department, 95 completed the survey. Of the 148 employees from the Police department, 61 completed the survey. This participation resulted in 156 completed surveys, yielding a response rate of 53.4 percent. The majority of the sample was female ($n = 96$), married ($n = 78$), and had dependents ($n = 97$). Participants had been with the organization for an average of 65.5 months ($SD = 77.13$).

Measures

The study hypotheses related to four variables:

- (1) employee need;
- (2) employee communication with their manager about need;
- (3) reward allocation; and
- (4) employee perceptions of fairness.

In addition, we included employee performance evaluation ratings to test the relationship between need and reward allocation, above and beyond the relationship between performance evaluation ratings and reward allocation. A description of each of the variables is included below.

Employee need. Employee need was operationalized through six questions on the questionnaire that related to the presence of family illness, accidents, use of family leave time, and dependent care. This measure was similar to those measures used in past studies that define need based on reasons why employees take leave under the Family Medical Leave Act (Fischer, 2004; Fischer *et al.*, 2007; Evans *et al.*, 2010). The incidents are: accident/illness of a spouse, accident/illness of a child, accident/illness of a parent, a lack of spouse's health insurance, and a question to measure (specifically) whether one took family leave in the last year. Indeed, scores of the first five items were significantly correlated with the last item (whether one had taken leave over the last year $r = 0.31$, $p < 0.01$), supporting the construct validity of the items. This type of measure is most similar to a checklist, preventing calculation of internal consistency, as the events are not necessarily expected to covary (similar to the Life Events Checklist; Gray *et al.*, 2004). Instead, the measure was scored as 0 (presence of none of the life events) and 1 (presence of one or more of the life events).

Performance evaluation ratings. A separate measure of performance is included based on the participant's self-recall of their rating on the most recent performance evaluation. The performance ratings ranged from 1 (did not meet expectations) to 4 (exceeded expectations). Organizational records confirmed that the average (self-reported) performance evaluation rating of the sample completing the survey ($M = 3.63$, $SD = 0.62$) mirrored the average performance evaluation rating of the total population from the two departments ($M = 3.73$, $SD = 0.54$; $t = 1.77$, $p > 0.05$).

Reward allocation. The percent pay increase, ranging from 0 percent to 10 percent that the employee received based on the most recent performance evaluation rating was used to measure reward allocation. Guidelines were provided to managers that recommend the percent increase to consider based on a particular performance rating. Organizational records confirmed that the average (self-reported) pay increase of the sample completing the survey ($M = 2.68$, $SD = 2.82$) mirrored the average pay

increase of the total population from the two departments ($M = 2.48$, $SD = 1.65$; $t = 0.95$, $p > 0.05$).

Employee perceptions of fairness. To assess employee perceptions of fairness, a four-item scale was adapted from Colquitt's (2001) measure of perceptions of procedural justice ($\alpha = 0.95$). The items all began with "The procedures to determine merit increases have . . ." and included, "been free of bias," "been applied consistently," "been based on accurate information," and "upheld ethical and moral standards." The term "merit" is common vernacular within the organization for a pay increase. Participants responded to these items on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Results from a meta-analytic review demonstrate the construct validity of this measure, with discriminant values less than 0.17 and convergent values greater than 0.42 (Colquitt *et al.*, 2001).

Employee communication with their manager about need. Four items were developed to measure the communication between employees and their managers about topics specific to employee need related to taking family and medical leave. Because our need variable specifically focused on one's family members' health and dependent care, the employee communication with their manager about need variable was designed to mirror communication with one's manager about those topics. Specifically, participants rated the extent that they discussed their children's health, spouse's health, parents' health, and spouse's work situation with their manager.

The four-item scale had an adequate level of internal consistency ($\alpha = 0.75$). Participants responded to these items on an 8-point scale ranging from 0 (never) to 7 (several times per day). Although this scale was created for the current study, the content validity of the items is high and the construct is consistent with the items used to assess need.

Common method variance

Because all of the variables were self-report, we followed the procedures suggested by Podsakoff and colleagues to test for common method variance (Podsakoff *et al.*, 2003; Podsakoff and Organ, 1986). First, we conducted Harman's one-factor test where all of the response variables are entered in a factor analysis. If there is a substantial amount of common method variance (CMV) either only one factor will emerge from the factor analysis, or the first factor will account for the majority of variance between the variables.

The unrotated factor analysis yielded six factors with eigenvalues over 1. The first factor accounted for 23.59 percent of the variance, the second accounted for 19.73 percent of the variance, the third factor accounted for 11.13 percent of the variance and the remaining three factors accounted for less than 10 percent of the variance each. Interestingly, the first factor consisted of employee perceptions of fairness, the second factor consisted of the employee communication with their manager about need items, and the third factor consisted of most of the need items. Moreover, rewards and performance evaluation ratings loaded on separate factors from one another and separate factors from the rest of the other variables. Because neither condition of Harman's one-factor test was met, there is some evidence that the data in the current study was not substantially influenced by common method variance. A second suggestion of Podsakoff and Organ (1986) is to trim any items that represent

substantial overlap between the constructs of interest. No items from any of our measures demonstrated any overlap.

Third, consistent with Podsakoff *et al.*'s (2003) suggestions, we conducted a confirmatory factor analysis to test for the independence of our items. Data were analyzed using structural equation modeling using AMOS 19. Consistent with Hall *et al.* (1999) we formed item parcels to form two indicators for both of the scales with more than one indicator (employee communication with their manager about need and employee perceptions of fairness). Parceling reduces the sample size to parameter ratio, as this ratio impacts the standard errors and stability of estimates. Reward allocation and performance evaluation ratings were single item measures so the manifest variables were used in the analyses. Because need was a dichotomized variable, it was also used as a manifest variable. Goodness-of-fit indices were used to demonstrate an adequate fit based on predicted versus observed covariances, the comparison of the given model with an alternative model, and predicted versus observed covariances but penalizing for lack of parsimony (Jaccard and Wan, 1996). In addition to Chi-square, we examined the root-mean-square error of approximation (RMSEA) and the comparative fit index (CFI). RMSEA values less than 0.05 indicate a good fit, while values between 0.05 and 0.08 indicate moderate fit (Browne and Cudeck, 1993; Hu and Bentler, 1995). CFI values exceeding 0.93 are acceptable (Byrne, 1994). In support of the measurement model, the chi square was not significant ($\chi^2(12) = 16.01, p > 0.05$), the CFI was 0.99 and the RMSEA was 0.05. All indicate a good fit of the measurement model (Table I, Figure 2). Further, the latent variables loaded highly on their expected factors and did not load on any other factors. The correlations between variables were small to moderate supporting the discriminant validity among variables. Thus, although CMV could still be of concern, we expect that CMV cannot account for our results.

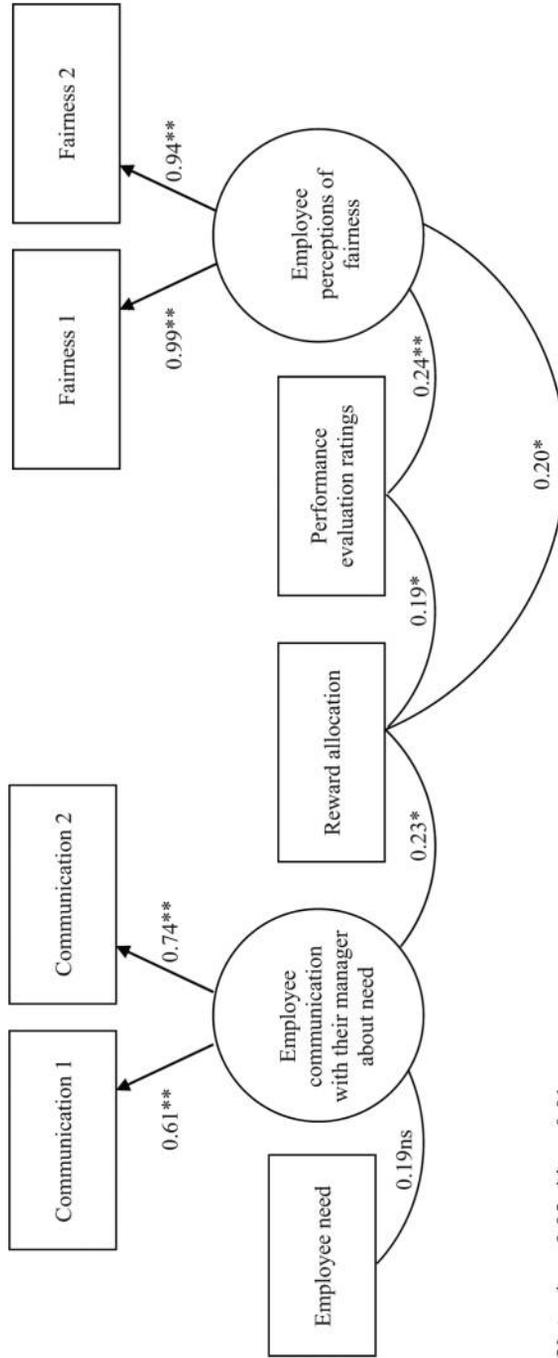
Results

Data were examined for differences between the department samples prior to combining samples. No differences were observed between the department of human resources and the police department in major study variables (need: $t(154) = 1.70$,

	Standardized estimate	Standard error
Employee need ^a – Employee communication with manager about their need	0.19	0.06
Communication 1 → Employee communication with their manager about need	0.61*	0.48
Communication 2 → Employee communication with their manager about need	0.74**	–
Employee communication with their manager about need – Reward allocation	0.23*	0.31
Reward allocation – Performance evaluation ratings	0.19*	0.14
Reward allocation – Employee perceptions of fairness	0.20*	0.25
Fairness 1 → Employee perceptions of fairness	0.99**	–
Fairness 2 → Employee perceptions of fairness	0.94**	0.10
Performance evaluation ratings – Employee perceptions of fairness	0.24**	0.06

Table I.
Measurement model

Notes: ^aEmployee need is coded as 0 (No need) and 1 (Need); * $p < 0.05$; ** $p < 0.01$



Note: * $p < 0.05$; ** $p < 0.01$

Figure 2.
Measurement model
testing hypothesized
relationships among study
variables

$p > 0.05$; reward allocation controlling for performance evaluation ratings: $F = 1.84$, $p > 0.05$), resulting in their combination for further analyses. Table II provides the means, standard deviations and correlations among the study variables. For these variables, missing values were replaced with the mean, which is a commonly used procedure for dealing with missing data (McDonald *et al.*, 2000). Because replacing data with the grand mean can reduce correlations, the relationships were examined without mean replacement and the results were the same.

Test of hypothesized model

Our hypothesized model (Figure 3) suggested that employee need will be positively related to employee communication with their manager about need, employee communication with their manager about need will be positively related to reward allocation, and reward allocation will be positively related to employee perceptions of fairness. In addition, we included employee performance evaluation ratings to test the relationship between employee need and reward allocation, above and beyond the relationship between performance evaluation ratings and reward allocation.

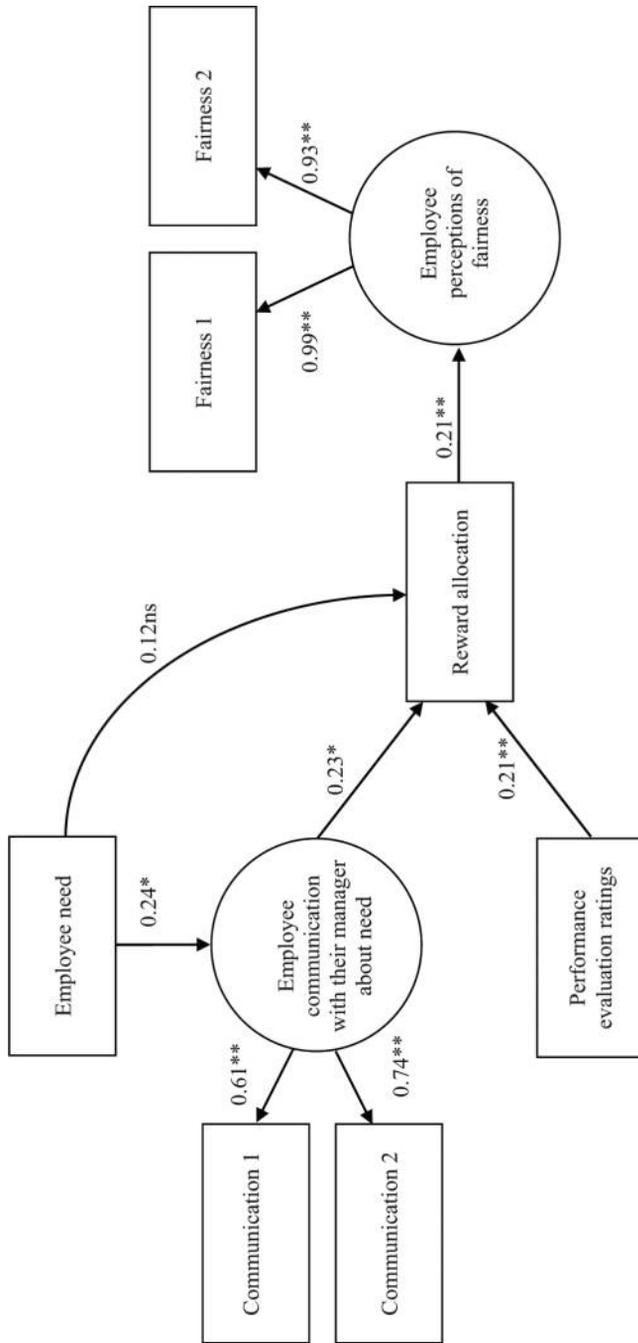
All hypotheses were tested using structural equation modeling (SEM). Similar to the measurement model, we examined the fit of the model to the data by examining the RMSEA, CFI, and Chi-square. Overall, the data fit the hypothesized model extremely well (Table III, Figure 3). The chi square was non-significant ($\chi^2(12) = 17.45$, $p = 0.13$), the RMSEA was 0.05, and the CFI was 0.99, all suggesting a good fit of the model to the data.

Beginning with the first three hypotheses, *H1* suggested that employee need would be positively related to reward allocation, *H2* suggested that employee communication with their manager about need would be positively related to reward allocation, and *H3* suggested that the relationship between employee need and reward allocation would be mediated by employee communication with their manager about need. Because these first three hypotheses represent an indirect relationship (from employee need to communication with one’s manager about need to reward allocation) we followed the procedure for testing total and indirect effects using bootstrap-generated bias-corrected confidence intervals (MacKinnon *et al.*, 2002). Bootstrap analyses are preferred over more traditional regression methods (e.g. Baron and Kenny, 1986; Sobel, 1982), because the latter often produces standard errors and corresponding confidence intervals for indirect estimates that are not normally distributed (e.g. Shrout and Bolger, 2002). Consistent with Mooney and Duvall’s (1993) recommendations, we resampled the data 1,000 times for the bootstrapping procedure.

Table II.
Means, standard deviations, and intercorrelations among all study variables

	M	SD	1	2	3	4	5
1. Employee need ^a	0.59	0.49	–				
2. Employee communication with their manager about need	2.37	3.02	0.20*	–			
3. Performance evaluation ratings	3.63	0.62	–0.09	0.10	–		
4. Reward allocation	2.68	2.82	0.16*	0.21**	0.21**	–	
5. Employee perceptions of fairness	3.15	1.12	–0.08	0.05	0.24**	0.20*	–

Notes: ^a Employee need is coded as 0 (No need) and 1 (Need); * $p < 0.05$; ** $p < 0.01$



Note: * $p < 0.05$; ** $p < 0.01$

Figure 3. Measurement and path model showing relationships among study variables

	Standardized estimate	Bootstrap standard error
<i>Total effects</i>		
Employee need ^a → Employee communication with their manager about need	0.24*	0.12
Employee need → Reward allocation	0.18*	0.08
Employee need → Employee perceptions of fairness	0.04*	0.02
Employee communication with their manager about need → Reward allocation	0.23*	0.11
Employee communication with their manager about need → Employee perceptions of fairness	0.04*	0.02
Performance evaluation ratings → Reward allocation	0.21**	0.06
Performance evaluation ratings → Employee perceptions of fairness	0.04*	0.02
Reward allocation → Employee perceptions of fairness	0.21**	0.08
Fairness1 → Employee perceptions of fairness	0.99**	0.09
Fairness2 → Employee perceptions of fairness	0.93**	0.09
Communication1 → Employee communication with their manager about need	0.61**	0.44
Communication 2 → Employee communication with their manager about need	0.74**	–
<i>Direct effects</i>		
Employee need ^a → Employee communication with their manager about need	0.24*	0.12
Employee need → Reward allocation	0.12	0.46
Employee communication with their manager about need → Reward allocation	0.23*	0.30
Performance evaluation ratings → Reward allocation	0.21*	0.34
Reward allocation → Employee perceptions of fairness	0.21**	0.03
<i>Indirect effects</i>		
Employee need → Reward allocation	0.06*	0.05
Employee need → Employee perceptions of fairness	0.04*	0.02
Employee communication with their manager about need → Employee perceptions of fairness	0.05**	0.03
Performance evaluation ratings → Employee perceptions of fairness	0.04*	0.02

Table III. Measurement and structural coefficients for study variables

Notes: ^aEmployee need is coded as 0 (No need) and 1 (Need); * $p < 0.05$; ** $p < 0.01$

To test indirect effects in structural equation models a “saturated” model which includes all direct and indirect paths is tested and then the total and indirect effects are examined for significance (Mathieu and Taylor, 2006). First, we examined whether there is an overall significant effect of employee need on reward allocation by testing the combined direct (relationship between employee need and reward allocation) and indirect (relationship between employee need and reward allocation through employee communication with their manager about need) effects of employee need on reward allocation to ascertain the “total effect” of employee need on reward allocation. The total effect was 0.18 (se = 0.08, $p = 0.04$, [CI_{90percent} = 0.04, 0.30]) and the significance value and the fact that the confidence interval does not include zero tells us that there is a meaningful total effect of employee need on reward allocation, in support of *H1*.

Second, to test *H2*, we examined the direct effect of employee communication with their manager about need on reward allocation. The relationship was statistically significant ($B = 0.23, p < 0.05$). Third, we tested the indirect effect of employee need on reward allocation through the mediating variable of employee communication with their manager about need. The indirect effect represents the variance accounted for by employee communication with their manager about need in explaining the relationship between employee need and reward allocation. In support of *H3*, that employee communication with their manager about need would mediate the relationship between employee need and reward allocation, the indirect effect of employee need on reward allocation was 0.06 ($se = 0.05, p = 0.04, [CI_{90\text{percent}} = 0.01, 0.16]$). The significance value and the fact that the confidence interval does not include zero indicates that there is a significant indirect effect of employee need on reward allocation through employee communication with their manager about need. Further, the direct effect of employee need on reward allocation (after partially out the indirect effect) was 0.12 ($se = 0.09, p = 0.18, [CI_{90\text{percent}} = -0.04, 0.26]$) and was not statistically significant, supporting full mediation.

Finally, *H4* suggested that reward allocation would be positively related to employee perceptions of fairness. The SEM provided support of this hypothesis given the significant relationship between reward allocation and employee perceptions of fairness ($B = 0.21, p < 0.05$).

Discussion

The purpose of this study was to investigate whether employee need relates to reward decisions in a service-oriented, non-profit organization within a Western culture with individualistic values, wherein compensation policies formally dictate a pay-for-performance system. Our findings support the notion that, despite organizational policies to the contrary, employee need is related to the rewards allocated. It is through this relationship that employee need is ultimately related to employee perceptions of fairness.

As expected, given the widespread Western acceptance of pay-for-performance policies, evaluations of employee performance were positively related to both reward allocation and employee perceptions of fairness regarding compensation. It was novel that our study also revealed that employees with greater need (such as those who suffered family or personal illness) were more likely to receive larger rewards, although this relationship appears to be indirect. The association between employee need and rewards allocated was explained by employee communication with their manager about need. Employees faced with difficult personal circumstances were more likely to communicate frequently with their manager regarding these issues; it is this communication with one's manager that appears to directly increase the rewards allocated. Moreover, when communication with one's manager was included in the model, the formerly significant relationship between employee need and reward allocation became non-significant.

Our research makes two important contributions to the literature. First, this study provides support for the role of employee need in the decision to allocate rewards in applied organizational settings outside of collectivistic cultures or developing countries, (Leung, 1997; Stone *et al.*, 2007; Zhou and Martocchio, 2001). It further differentiates itself from past research by focusing on the employee's situation as

compared to the employee's perceptions of others' circumstances (Fischer, 2004). Whereas studies on reward allocation in Western countries have largely focused on equity and equality as the basis for allocating rewards (Leung, 1997), the current study suggests that employee need also influences reward allocation. Our findings also suggest that the contextual value systems, such as the relationship between a manager and an employee, may have a greater impact on the decision to allocate rewards based on need than the prevailing cultural norm towards the equity principle. Second, our model provides a more comprehensive understanding of the mechanism underlying the relationship between employee need and reward allocations. Our research suggests that employee need is related to reward allocation indirectly, such that the positive relationship between employee need and rewards occurs because of the propensity of employees with needs to communicate those needs regarding personal and family circumstances to their manager.

Future research directions

Although this study contributes to the extant knowledge of the relationship between performance and rewards, future research is needed to further investigate how employees with personal and family needs communicate this information to management, and to understand more precisely why greater communication by employees with needs leads management – whether consciously or not – to offer additional rewards to these employees. Notably, communicating personal and family issues to one's manager may increase reward allocations because such communication improves the quality of the supervisor-subordinate relationship (for example, by allowing supervisors to recognize personal commonalities with their subordinates), rather than because such communication informs supervisors of employee need. Hence, future studies of employee need and the communication of need with one's manager should consider whether the communication of need affects reward allocation directly beyond improving leader-member exchange quality (Scandura *et al.*, 1986). This research could delineate the type of need communicated and the attributions that employees make regarding the rewards received by self and others.

Further research is also necessary to identify the extent to which this finding generalizes to other work settings in Western countries. In the focal organization, managers were provided with guidelines to allocate rewards. The relationship might be even stronger in organizations without guidelines. Thus, future research should examine the level of structure provided by organizations in the allocation of rewards, as well as the level of importance given to different criterion in the specific outcome decision. For example, in a study evaluating the impact of pay-for-performance on distributive justice in a Korean company, Chang and Hahn (2006) operationalized payfor-performance as the degree to which a compensation decision was determined by seniority and individual performance.

Additionally, our participants were limited to two departments within a non-profit medical organization, where “caring” is explicitly named as a core value and component of the organizational mission, potentially aligning it more closely with traditional collectivist cultures. Therefore, despite formal policies based on the traditional Western pay-for-performance standard within the organization investigated, a consideration of employee need seems consonant with the broader organizational mission. Thus, future research should explore whether this finding

generalizes to for-profit organizations or other industries, such as banking or manufacturing, within Western countries where the organizational mission may not place as strong an emphasis on compassion.

Implications for society

Even as theorists decades ago questioned societal implications in the distribution of wealth (Adams, 1965), the question of how rewards are allocated within organizations remains today. Practically, our findings suggest that employees who are struggling or wrestling with illness, emergency situations, or difficult family care issues, should express their personal and family circumstances at work. This is evidenced by our results that show the relationship between employee need and reward allocation is only present when an employee frequently communicates with their manager about those needs, such as a sick family member.

However, employers are faced with serious considerations in an era of healthcare reform where the implications of employee health issues are not fully known. Furthermore, with fewer resources, employees are being asked to do more with less, exacerbating stress levels and increasing the likelihood of employee need (Fleury and Fuerstenberg, 2011). Fleury and Fuerstenberg estimate close to 23 percent of payroll is spent on employee health and absence. In a less favorable economy with the highest proportion of long-term unemployment on record in fifty years, this research is timely to understand how employee need relates to allocation decisions (Ilg, 2010). As of June 2010, 14.6 million people in the USA are currently unemployed (United States Bureau of Labor Statistics, 2010).

As a result of job losses and foreclosures in the current economy, more employees are facing situations where they are expected to take on familial responsibilities, not only for the traditional nuclear family, but for the extended family members as well. For example, according to a recent analysis of census figures from the Pew Research Center by Taylor *et al.* (2010), over the past 30 years, there has been a 33 percent increase in the number of multi-generational families living together in the USA. Such situations may move an individualistic culture more in line with the norms of collectivistic cultures.

Conclusion

Besides performance, our study evinces that need is another important basis for allocating rewards in Western organizations. By understanding the factors and values that lead to decisions in the allocation of rewards, we are able to expand the complexity of the performance-reward model as well as position organizations to better respond to their employees' expectations. These expectations may ultimately change the norms and formal policies that govern even the most individualistic organizations.

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