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Strategically Managing Employee Benefits: Predictors of Benefit Choices

Troy V. Mumford
Department of Management
College of Business
Colorado State University
222 Rockwell Hall
Fort Collins, CO 80523-1275, USA

Steven Hanks
Utah State University
3555 Old Main Hill
Logan, UT 84322-3555, USA

Cherissa Alldredge
Utah State University
USA

Abstract

Employee benefits comprise 30% of total compensation. In order to facilitate the strategic management of the employee benefits, this study investigates the relationship between employee benefit choices and employee characteristics. In a field sample of 155 employees actual benefit choices are analyzed with questionnaire data on the employee's risk-taking propensities, health locus of control, perceptions of benefit importance, and expected use of benefits. Findings indicate that internal locus of control of health and high risk-taking propensity were associated with choosing the high contribution health plan option. In addition, a high estimated use of benefits and importance of benefits relative to cash compensation were related to choosing the low contribution plan option. The results illustrate that the benefit choices of employees are related to their psychological traits, suggesting that organizations can influence the performance-related composition of their workforce through employee benefit offerings.

Key Words: Employee Benefits, Compensation, Strategic Human Resource Management, Locus of Control, Risk Taking Propensity, Personality, Flexible Benefits

Introduction

The strategic use of employee benefits is a critical and under addressed area of research (Deadrick & Gibson, 2007; Muse & Wadsworth, 2012). Employee benefits are typically defined as "non-cash" benefits that impose costs on employers but provide utility to the employee (Lurie, 1966). Use of employee benefits in a strategic manner involves attempts by firms to align benefit offerings and systems in support of the organization's business strategy. However, while previous research has considered how Human Resources should be strategically managed (e.g., Delery & Doty, 1996; Huselid, Jackson, & Schuler, 1997), and how various elements of direct compensation can be used strategically (e.g., Brown, Sturman, & Simmering, 2003; Rajagopalan & Prescott, 1990; Snell & Dean, 1994), research on the strategic use of employee benefits has been less common (Lengnick-Hall & Bereman, 1994; Milkovich & Newman, 2008; Tremblay, Sire, & Pelchat, 1998). For example, a recent meta-analysis of in the field of compensation focused solely on pay-level satisfaction due to the limited literature on more specific compensation forms such as benefits (Williams, McDaniel, Nguyen, 2006).

This lack of research on strategic benefits is at odds with the growing prominence of employee benefits on the organizational landscape and calls for more research on the strategic use of benefits (Dulebohn, Molloy, Pichler, & Murray, 2009).

In order to strategically manage employee benefits, organizations must determine the relationship between their benefit plan offerings and important strategic variables such as the composition of the workforce. Such linkages between the benefit offered and employee characteristics represent an important tool for maximizing the utility derived by the organization from the benefits. Because employee benefits are a membership reward contingent upon an employee remaining with the organization (Milkovich & Newman, 2008), it is useful to consider two mechanisms by which they have a strategic impact on the organization. First, benefit offerings can have a *magnitudinal impact* on an organization's ability to attract and retain employees. By offering higher benefit levels the magnitude of their impact on the workforce increases. Such a magnitudinal impact may be manifest in more applications, more offer acceptances, and/or fewer voluntary resignations (Barber, 1998). Thus, by offering more of all benefits, the organization may attract and retain more of all types of employees. This magnitudinal impact has been demonstrated in such research as Williams and Dreher (1992) who found that benefit compensation was related to bank teller applications. Unfortunately, when strategically managing benefits, only considering this impact has two drawbacks. First, it brings with it costs associated with overly large selection pools (Barber, 1988). Second, it fails to fully capture the strategic utility of the benefit rewards by ignoring their potential to impact the composition of the workforce.

The second potential strategic impact of employee benefits is their *compositional impact*. The compositional impact represents the differential influence of benefit options on the composition of the workforce. This impact would be seen in certain types of employees being attracted or retained by certain benefit options. Thus, by offering more of a particular form of benefit, the organization is able to attract and retain more employees with particular characteristics. Research by Weathington and Tetrick (2000), for example, has shown that benefits offered have an influence on the attitudes of employees (see also Weathingon & Jones, 2006). In addition, as the cost of benefits increases, they become increasingly more important, especially for lower wage earners (Weathington, 2008). If this connection between benefit types and levels is strong enough to translate into employee turnover decisions, then the benefits offered could lead to compositional changes in the workforce. For example, with the aging of the workforce, it is often suggested that by providing a particular type of benefit, an organization can attract employees out of retirement (Armstrong-Stassen, 2006). The distinction between the magnitudinal and compositional impact of employee benefits is critical to their strategic management. Only when we know the relationship between workforce characteristics and the benefit options can those benefit options be managed on any basis except for costs. This paper will go beyond defining connections between demographics and benefit options to include employee characteristics that have more strategic performance implications.

The current study will advance our ability to use employee benefits in a strategic manner by furthering our understanding of the relationships between benefit plan options and employee characteristics. This study will begin to answer the question of how benefit offerings are related to capacity-related characteristics of the workforce. Within a flexible benefit environment, this study investigates how employee traits, such as risk-taking propensity and health locus of control, and employee cognitions, such as benefit plan use and benefit importance, are related to the benefit choices employees make. This research answers the call for considering the role of individuals differences (Dulebohn, et al., 2009) and provides an understanding of the predictors of benefit plan choices that will provide critical information for strategically managing benefits in order to shape the characteristics of the workforce.

1.1. Employee Benefits

A current trend in employee benefits administration is the provision of choice to employees in the structure and content of their benefits (Sinclair, Leo, & Wright, 2005). Programs that provide such choice to employees are referred to as flexible benefit programs (Barringer & Milkovich, 1998; Beam & McFadde, 1996; Rosenbloom, 1996). According to benefit surveys conducted by the Society for Human Resources Management in 2004, 2006, and 2010, between 30 and 50 percent of all organizations offered a full flexible benefits plan (Burke, 2004; Fegley, 2006; SHRM, 2010). Offering employees a choice among various benefit options is often touted as an effective way to control costs (Scofea, 1994), increase employee participation in healthcare related decisions (Barringer & Milkovich, 1996), provide greater value to employees (Dencker, Joshi, & Martocchio, 2007), and increase employee appreciation of the benefits offered (Wilson, Northcraft, Neale, 1985).

While there is considerable variability among flexible benefit plans, the common element among these plans is that employees have some degree of choice in the type and mix of benefits they receive. For example, in a typical cafeteria-type benefits plan, employees may be able to choose whether vision insurance or dental insurance is included in their benefits package. Such choices allow employees to maximize the value they receive from benefits, while minimizing the costs of the employer that result from underutilization.

While scholars have begun to investigate the determinants of flexible benefit choices employees make, more information is needed to understand the extent to which employee choices among benefit options are systematically related to employee characteristics. For instance, Barringer and Milkovich (1996) called for additional research into determinants of health plan choice. Specifically, the authors highlighted the need to investigate "perceived health care needs" and "risk aversion" (pg. 313) as potentially important employee characteristics that should be investigated. This call to study individual differences was echoed by Dulebohn et al. (2009) in noting that HRM research had neglected the study of risk aversion in the context of employee benefits.

Our objectives in the current study are to fill a portion of the gap in our understanding of employee benefits by examining the relationship between employee characteristics and benefits package choice. We answer the call by Sturman, et al. (1996) for research into employees' expectations about medical expenses. Specifically, we investigate how expected use of benefits and importance of benefits are related to employee's flexible benefit choices.

Second, the current paper fills the gap in our knowledge of how personality variables are related to benefit choice by answering the call by Barringer and Milkovich (1996) for research into risk aversion and benefit choice. The study directly measures the two key individual differences, risk-taking propensity, and health locus of control that are potentially linked to flexible benefit choices. This builds upon and extends the knowledge generated by previous studies in which such individual differences have only been inferred (Barringer & Mitchell, 1994) or conjectured (Barringer & Milkovich, 1996).

1.2. Flexible Benefit Choice and Employee Reactions

There are at least two streams of research investigating flexible benefit plans. One stream investigates predictors of employee benefit satisfaction. The other deals with the predictors of employee plan choices.

The majority of research in this area investigates how the adoption of flexible benefit plans impacts employee reactions such as job or benefit satisfaction (Barber, Dunham, and Formisano, 1992). For instance, Rabin (1994) found that employee satisfaction with benefits increased following the introduction of a flexible benefit plan. Similarly, Barber *et al.* (1992) found that the implementation of the flexible benefits plan positively impacted both benefit satisfaction and job satisfaction. In a contrasting study, however, Tremblay, et al. (1998) found a negative relationship between introducing the flexible benefit plan and benefit satisfaction. The authors propose that the negative relationship may have been due to the increased complexity of the flexible benefit plan. Clearly, further research is needed to better understand the boundary conditions surrounding the flexible benefits – benefit satisfaction relationship. For example, Barber et al. (1992) call for more research on the process by which flexible benefits impact employee satisfaction and encourage the distinction between the content of the benefit plan and how it is administered. The current study responds to these tasks by considering the relationship between plan choices and satisfaction levels as well as procedural and distributive justice distinctions.

Other recent theoretical work has begun to explore reasons as to why organizations might adopt flexible benefit plans. Barringer and Milkovich (1998), proposed several determinants, including cost concerns, employee preference and expected efficiency gains. The authors posit that one area in which these gains can be realized is through influencing the composition of the workforce. This logic dovetails with Schneider's (1987) Attraction-Selection-Attrition Framework (ASA). That is, if the characteristics of an employee benefit plan are systematically related to some employee characteristic, then individuals possessing that characteristic would be more likely to be attracted to that firm and be retained in the firm. This would result, then, in there being a higher probability of the workforce possessing that characteristic. While previous research has investigated demographic descriptions of the workforce, the current study advances knowledge in the field by considering psychological variables that may be related both to plan choices by employees and desired work behaviors.

1.3. Flexible Benefit Choice Antecedents and Hypotheses

Most studies examining the predictors of employee benefit choice either explicitly or implicitly assume that employees make those choices in a rational, utility maximizing manner. This theory, expected utility maximization theory (EUM) proposes that in making benefit choices, employees will choose the option that maximizes the utility, or value, they will receive (Feldman, Finch, Dowd, & Cassou, 1989; Sturman, Boudreau, & Corcoran, 1996). This choice is based on the immediate cost of each option as well as the probability associated with incurring future costs. Thus, employees will consider not only the immediate cost of each benefit alternative, but also the potential future costs incurred under each option.

Few studies have examined the predictors of employee's benefit choices in the flexible benefit environment. One of the most thorough treatments, however, was carried out by Sturman, et al., (1996). In this study of manufacturing employees, the authors found that demographic variables (gender and number of children) and situational variables (timing of decision and higher potential for financial regret) were significant predictors of the employees making a cost-optimal choice. In addition, the authors found that the majority of employees, 75%, chose to stay with a higher premium plan, when given an option of choosing a lower premium plan. This suggests a tendency toward risk aversion in employees with regard to their health care choices, but such an aversion was not measured directly.

A second study Barringer and Milkovich (1996) also investigated determinants of employees flexible benefit choices. In a sample of National Cash Register employees, the authors found that plan choice was influenced by plan characteristics (premium, deductible, and coinsurance amounts) as well as employee characteristics (age, gender, salary, and marital status).

A third study, related to a specific type of flexible benefit plan, Flexible Spending Account (FSA) contributions (Feldman, 2001). This study found that two socio-demographic factors influenced contribution rate, namely, education level and income level. A fourth study, by Royalty and Hagens (2005) investigated employee choices among hypothetical insurance offerings. This study found that employees were not price-sensitive when it comes to employee health insurance, but were price-sensitive with regard to dental insurance, vision plans, and wellness benefits.

A final study investigating the antecedents of plan choice was carried out by Barringer and Mitchell (1994). The authors found that demographic factors (age, gender, marital status, and salary) and plan characteristics (premiums and deductibles) were significantly related to the type of plan chosen by employees. Unfortunately, trait-related variables that may be useful in strategically influencing the composition of the workforce were not included.

Thus, the research literature to date has begun to investigate how demographic variables and plan characteristics influence employee's benefit choices. To date, however, the role of psychological variables has been absent from the investigations. The current study fills this omission by considering the role of two personality variables: risk-taking propensity and health locus of control.

1.3.1. Risk Propensity

In order to make benefit choices, therefore, employees estimate the probabilities of incurring future costs. These probability estimates are made in an environment of uncertainty (Hung & Tangpong, 2010). Employee estimates of probabilities in this environment of uncertainty are likely to be influenced by an individual tolerance for risk, or risk propensity. Risk-taking propensity is a particularly important variable to consider due to its potential implications for individual behavior, decision-making, and performance as well as the development of an innovative and empowered organizational culture (Busenitz, 1999; Bloom & Milkovich, 1998; Herrenkohl, Judson, & Heffner, 1999; Palich & Bagby, 1995).

Risk Propensity represents a dispositional preference for high-risk-high-reward alternatives as opposed to low-risk-low-reward alternatives (Mukherji & Wright, 2002). Barringer and Mitchell (1994) found that employees have a tendency to choose plans that expose them to less risk. The authors inferred from this that employees have a preference for risk-minimizing plans. Unfortunately, the study did not measure the risk propensity of employees, and risk preference could only be inferred. Risk preference was also only inferred in the research by Strombom, Buchmueller, and Feldstein (2002).

Similarly, the price-insensitivity illustrated in the study by Royalty and Hagens (2005) and Dreher, Ash, and Bretz (1988) suggests that the risk intolerance of employees leads them to select health care coverage independent of the price changes that would change the risk-reward probabilities. Finally, Barringer and Milkovich (1996) called for research into how risk aversion may influence plan choice. The authors conjectured that firms that hire individuals who are willing to take risks would be likely to find that their plan choices also reflected that risk-taking attribute. Individuals with a high risk-taking propensity will likely be inclined to choose the low contribution plan because it provides guaranteed immediate savings and only the risk of higher costs in the future. Hypothesis one follows:

H1: Risk-taking propensity will be positively related to choosing the low contribution plan.

1.3.2.Health Locus of Control

According to the EUM model of employee benefit choice, individuals will seek to maximize value. To do this they must utilize information on guaranteed costs and estimate the likelihood of additional costs in the future. These future costs, in the realm of health care benefits, are directly linked to the likelihood of suffering from injury or illness and their potential severity. If employees perceive that they can influence the probability of suffering from an illness, then this will likely impact their benefit choices. This belief that one's health is within their own control is called health locus of control (HLC). HLC is derived from the concept of locus of control (Rotter, 1966) which is the expectancy that one's behavior either is or is not directly related to one's outcomes. This is an important characteristics to consider because research on locus of control has found it to be related to job satisfaction, absenteeism, and performance (Spector, 1982; Blau, 1987). Previous research has used this concept to study individual attitudes towards cholesterol reduction and alcohol related liver disease, as well as the psychological distress that cancer patients experience predominantly in the area of medical research (e.g., Wallston & Wallston, 1978; Wallston, Wallston, Kaplan, & Maides, 1976). Although the connections are clear, this variable has not yet been investigated with regard to benefit plan choice.

For the present study, a person who believes that they can control outcomes in their environment is defined as having an internal locus of control while those who believe that they cannot control those outcomes are defined as having an external locus of control. An internal locus of control has been found to be related to attitudes toward fitness and levels of physical activity (Carlise-Frank, 1991) as well as ability to deal productively with job strain (Hendrix, 1989) both of which are connected to health levels. Similarly, an individual having a high health locus of control believes that their health is controllable and manageable through choices they make. Thus, if employees believe they can control whether or not they suffer from health problems, they will be more likely to choose the plan with the greatest immediate savings, as stated in hypothesis two:

H2: Internal health locus of control will be positively related to choosing the low contribution plan.

1.3.3.Importance of Employee Benefits

Because individuals differ in the needs and preferences, some employees may value employee benefits more than others (Trembley, et al., 1998). One of the theoretical justifications for providing flexible benefit plans to employees is that it allows the organization to tailor the rewards system to the diverse needs and preferences of individuals within the organization (Barringer & Milkovich, 1998; Milkovich & Newman, 2005). EUM theory would predict that employees who place relatively more value on the offered employee benefit than they do on the alternative benefit or the equivalent cash would be likely to choose a plan that offered that benefit. This would be true, even if the result was that the employee was paying more cash in terms of premiums. This is consistent with research on the valuation of benefits that suggests employees tend to undervalue the benefits provided by their employers (Wilson, Northcraft, Neale, 1985). Those employees who value benefits the least, would be least likely to choose the plan option that requires them to pay a higher premium for the increased coverage. This idea stated as a hypothesis is:

H3: Benefit Importance will be negatively related to choosing the low contribution plan.

1.3.4.Expected Use of Employee Benefits

In EUM theory, the selection of an employee benefit depends upon a perceived likelihood of the benefit providing utility. Benefits that are expected to be used would provide relatively more value than those that are not expected to be used. Because extensive use of the benefit would result in higher costs with the high-risk plan, perceptions of high likely usage would be related to choosing the low-risk plan.

Indeed, research illustrates that past use of benefits is a strong predictor of future benefit use (Ellis, 1989). So even though there is evidence that employees have a generally tendency to be risk averse (Wiseman, Gomez-Mejia, & Fugate, 2000) and choose health care options that minimize risk even at higher cost (Sturman, et al., 1996), not all employees choose the high-cost low-risk option. One would expect that those who do choose the low cost-high risk option would be those individuals who had the lowest expected use of the benefits. Stated formally:

H4: Expected use of employee benefits will be negatively related to choosing the low contribution plan.

1.3.5.Demographics

As mentioned above, prior research into employee benefit choice has studied a variety of demographic variables that have been found to be significant. For example, Barringer and Milkovich (1996) found that as age increased the probability of selecting catastrophic, or a high-deductible, low-premium plan, decreased. This finding is consistent with those from Barringer and Mitchell (1994) who also found age to be related to choosing a more traditional plan. Sturman, et al., (1996) did not find that age was a predictor of optimal decision-making, however. Taken together, this tendency is not surprising given that health care issues and expenses are likely to increase with age.

Gender is another variable that has been considered. Findings include that men are more likely to choose a benefits plan that is cost-optimal (Sturman et al., 1996) and that women are more satisfied with their benefits (Trembley, et al., 1998). A contrasting study found that women tended to choose the higher risk plan (Barringer and Mitchell, 1994). One possible explanation for this is that women may be more likely than men to be covered under their spouses' insurance plan (Barringer & Mitchell, 1994; Feldman, Finch, Dowd, & Cassou, 2001).

The salary level of employees would likely be related to which plan they choose. Barringer and Mitchell (1994) found that higher paid employees were more likely to select the traditional fee-for-service plan. Presumably this is because individuals with a higher salary have more disposable income to purchase the additional benefit. This is consistent with Trembley's, et al., (1998) finding that benefit importance was inversely related to salary level. Likewise, Barringer & Milkovich (1990) found that higher salaried employees tended to choose the more expensive coverage. This research on employee demographics suggests the following hypotheses:

H5: Demographic variables will be related to health plan choice such that:

H5a: Age will be negatively related to choosing the low contribution plan.
H5b: Gender will be negatively related to choosing the low contribution plan.
H5c: Salary will be negatively related to choosing the low contribution plan.

2. Methods

2.1. Participants, Procedures & Instrumentation

The sample included 155 employees of a large university. 112 of the sample (72%) were female. The mean age was approximately 45 years old.

The study used a stratified random-sampling procedure to ensure adequate sample sizes for the analysis of particular subgroups. Surveys were sent to 498 employees, 166 from each of three employee classifications: classified, professional, and faculty. Those returning the surveys yielded a stratified sample of 155 employees (38% response rate): classified (70), professional (71), and faculty (47) employees.

2.2. Antecedent Variables

Locus of Control of Health. Employee's perceptions of the locus of control of their health was measured by two likert-type items: 'an individual's good/poor health is largely due to their own choice' and 'an individual's good/poor health is generally due to forces beyond their control (reversed scored)'. Coefficient alpha for this scale was .74.

Risk-taking Propensity. Employee's tendencies toward assuming risks was measured by two items: 'I enjoy risky activities' and 'I rarely take risks when there is a stable alternative (reverse scored)'. Coefficient alpha for this scale was .66.

Expected use of benefits. The extent to which the employee had used the benefits historically and expected to use them in the future was measured by two items: 'to what extent did you and your family use the employee health benefits last year?' and 'to what extent do you anticipate that you and your family will use the employee health benefits this year?'. Coefficient alpha for this scale was .88.

Importance of benefits. The importance of employee benefits relative to salary was measured by a single item: 'I would be willing to accept lower salary increases in order to maintain the current level of benefits.'

2.3. Outcomes Variables

Plan Choice. The choice of benefit plan was measured with a single item: 'which health benefit option have you selected, or do you intend to select?'. Because the survey was sent out after the deadline for indicating a choice, only three employees indicated that they had not yet made a choice. There were two plan options. Plan A, the low contribution plan, included lower premiums but higher copays, deductibles, and less coverage (Coded as '1' for analyses). Plan B, the high contribution plan, included higher premiums, but lower copays, deductibles, and higher coverage (Coded as '2' for analyses).

Benefit Satisfaction. Employee's satisfaction with benefits was measured by two items adapted from Williams, Malos, and Palmer (2002): 'considering what services cost in this area, the health benefits I receive from the organization are adequate' and 'my needs are NOT satisfied by the health benefits provided in the plan (reverse scored)'. Coefficient alpha for this scale was .75.

Distributive Justice Perceptions. Employee's perceptions that the benefits were competitive were measured with three items: 'the organization's benefits are competitive with other public agencies', the organization's benefits are competitive with other private sector employers', and 'health insurance premiums are going up at this organization, but they're still lower than most other employers.' Coefficient alpha for this scale was .82.

Procedural Justice Perceptions. Employee perceptions that the procedures used to administer the employee benefits were fair were measured by four items: 'the organization's employees are able to provide input into the design of the health benefits program', 'the organization seeks employee input in health benefits policy decision', I think the organization does a good job administering the health insurance program', and 'I think the organization is doing its best to provide quality health benefits at a reasonable cost to me'. Coefficient alpha for this scale was .87.

Job Satisfaction. Employee's overall job satisfaction was measured using a single item: 'Overall, I am satisfied with my job at this organization.'

Control Variables. Demographic questions included in the survey were: Age, gender, employee classification, salary, tenure with the organization, and number of individual's insured in the household.

3. Results

The relationship between the variables in the study is included in Table 1. The results of this bi-variate analysis indicate that both trait and cognitive employee characteristics are related to employee choice of benefit plans. Consistent with hypotheses, risk-taking propensity was in fact positively related to plan choice ($r = .18$, $p < .05$), signifying employee's risk-taking propensity was related to their choosing the low contribution option. Likewise, scoring high on the locus of control of health scale was significantly associated with choosing the low contribution option ($r = .18$, $p < .05$). The hypotheses related to the cognitions were also supported by the bi-variate analysis. That is, the perceived importance of employee benefits ($r = -.18$, $p < .05$) and the expected use thereof ($r = -.19$, $p < .01$) were both negatively associated with choosing the low contribution option. These results are consistent with research utilizing the EUM framework for understanding benefit choice. Also consistent with past research on the relationship between demographic variables and plan choice, the bi-variate results indicated that age ($r = -.22$, $p < .01$) was significantly related to choosing the low contribution option. Contrary to hypotheses, while gender ($r = -.12$) and salary ($r = .11$) were associated with plan choice, the relationship was not statistically significant.

The correlational analysis yielded several additional results that could serve as the starting point for future research. First, while previous research has suggested that procedural justice has a larger influence than distributive justice on benefits satisfaction (Tremblay, et. al., 2000), that was not the case in this study with the relationship between distributive justice and benefit satisfaction ($r = .60$, $p<.01$) being very similar to the relationship between procedural justice and benefit satisfaction ($r = .56$, $p<.01$).

Second, the correlation analysis results indicated a strong relationship between the importance an employee placed on benefits (benefit importance) and both distributive justice (r = .19, p<.05) and procedural justice (r = .19, p<.01). It appears that while the perception of distributive justice influences benefits satisfaction, the perception of procedural justice is influenced by the importance placed on the benefits that are available to them. Finally, the correlation results indicated that a positive relationship existed between benefit satisfaction and overall job satisfaction (r = .25, p<.01), between distributive justice and overall job satisfaction (r = .29, p<.01), and between procedural justice and overall job satisfaction (r = .17, p<.05). In all cases, these relationships were found to be statistically significant, indicating that the manner in which benefits are distributed and the types of benefits made available to employees influences also influences overall job satisfaction. It should be noted that risk propensity is negatively related to overall job satisfaction (r = -.17; p<.05). In this sample, being female was associated with having a lower risk-taking propensity (r = -.16; p<.05). .

Multi-variate analysis was also conducted to determine the combined effect of the variables on plan choice. Specifically, discriminant analysis was used to determine if employees with specific traits and cognitions are more likely to make a particular benefit plan decision. The results of this analysis are presented in Table 2. Discriminant analysis assumes homogeneity of variance-covariance matrices if the sample sizes are not equal. This was tested using Box's M test, which produced a non-significant result (F=1.244 p < .07), indicating that assumption was met. The results indicate that employees choosing the low contribution plan had a higher mean risk-taking propensity (m=3.19) than those who chose the high contribution plan (m=2.87). The difference was statistically significant (F=4.16, p < .05) and hypothesis one was fully supported. The second hypothesis was also supported in that employees who chose the low contribution plan had a higher locus of control of health (m=2.34) than those who chose the high contribution plan (m=2.06). This difference was also statistically significant (F=4.19, p < .05). Hypothesis three was supported, indicating that employees perceiving benefits as relatively important were more likely to choose the high contribution plan (F=5.70, p < .05). In addition, hypothesis four was supported statistically (F=5.67, p < .05). The expected use of benefits was higher for employees who chose the high contribution plan (m=4.56) than those who chose the low contribution plan (m=4.08). Among the hypotheses relating to the demographic variables, only hypothesis 5a was supported by the multi-variate analysis. Employees choosing the high contribution plan were significantly older than those choosing the low contribution plan (F=7.19, p < .01).

4. Discussion

4.1. Implications for Practice

This study yields several unique contributions to our understanding of benefit plans and practical implications for how they are used. First, the study contributes to our understanding of employee choices among flexible benefit options by considering psychological traits that may influence benefit choice. Specifically, the extent to which an employee perceives that they can control their health was found to be related to benefit choice. This is significant for several reasons. First, it represents the first attempt to directly measure such psychological traits in the benefits literature. Second, because an employee's propensity to take risks was systematically related to choosing a low contribution health plan, it takes the first step in establishing benefit characteristics-employee characteristics linkages. This has significant implications not only for benefit administration and satisfaction, but also for the composition of the workforce. That is, if the strategy of an organization involves promoting risk-taking behaviors, then offering a low contribution, and higher risk, health plan may promote the attraction and retention of employees with that tendency. This is one example of how benefits could potentially make a compositional impact on the workforce.

Second, the results highlight the importance of utility maximization in benefit choices made by employees. One of the strongest predictors of benefit choice was the cognitive estimations of the likelihood of using benefits. This supports EMT as a framework for understanding benefit choices and has practical implications for benefit plan design. For example, it suggests flexible benefit plans are likely encounter problems with adverse selection, as employees select options that they intend to use. In terms of recruiting, these results suggest that organizations may be able to influence the attractiveness of their benefit offerings by influencing the recruits perception of the likelihood of using a particular benefit.

Third, the study sheds light on how the relative importance of benefits and cash compensation can influence choice. Individuals who valued benefits relatively more than cash compensation were more likely to choose the high contribution plan. This result held even while controlling for salary level and work classification. This sheds light on possible value-based differences among employees, with some employees preferring that their organizational rewards come relatively more in the form of benefits rather than cash. These results have implications for Milkovich and Newman's (2008) suggestion that organizations can create flexible compensation systems that allow employees to choose the form of their returns (e.g., benefits or cash), which would potentially create an exchange relationship with employees that maximizes satisfaction while minimizing costs.

Fourth, the study shows that both procedural and distributive justice perceptions were related to benefit satisfaction and overall job satisfaction. However, contrary to the findings of Tremblay, et al., (2000) and Arnold and Spell (2006), the findings do not indicate that this relationship was stronger for procedural justice than it was for distributive justice. This is important because one reason for offering flexible benefits is to increase the level of employee participation in compensation decisions. While such participation has not been found to universally be associated with pay satisfaction (Morgeson, Campion, & Maertz, 2001), this study's results seem to indicate its utility. Interestingly, the employee's choice of plan was not related to any of the satisfaction or justice variables.

Finally, salary level was found to be negatively related to distributive justice perceptions but not to procedural justice perceptions. This is an important finding because it illustrates the economic redistribution inherent in the organization's benefit plan. The plan is self-funded, and is structured such that lower-paid employees pay lower premiums for the same coverage than their higher-paid colleagues. This policy seems to have a negative impact on distributive justice perceptions, but not on procedural justice perceptions. This suggests that organizations should pay as close attention to the processes used to communicate the benefit offerings as to the offerings themselves. Doing so can potentially alleviate some of the negative reactions to benefits reductions that have become increasingly common in recent years.

4.2. Implications for Research

This study also has several implications for future research which can expand on its findings and address its limitations. First, this study establishes that connections can be made between employee's choices among benefit options and psychological traits. This study only addressed two performance-relevant traits, however, and there are stronger predictors available. Future research should examine the extent to which these findings can be generalized to other settings and other traits. For example, there has been a large amount of research on general mental ability (GMA) and the big 5 personality traits that shows connections with job performance. One could surmise that individuals high in GMA would systematically choose different benefit options. Similarly, individuals high in conscientiousness or low in neuroticism may also be more likely to choose particular benefit options. Future research should attempt to consider such variables.

Second, this study investigated one specific benefit choice; health plan coverage. Many flexible benefit plans, however, offer their employees a broader array of benefit choices. Future research should investigate the extent to which these findings generalize to more complex plans and to other benefit choices. Similarly, this study considered the impact of the traits on plan choice within-organization design (e.g., flexible benefit environment). Would the same relationships hold in a between-organization design where recruits are evaluating job offers from organizations with different plan offerings? Answering these questions will increase the generalizability of the findings and further our understanding of how benefit options can be used strategically.

Third, future research should investigate the long-term choices made by employees. The current study investigated employee choices at a specific point in time. It would be informative to consider how an employee changes their choice based upon experience and life changes. Such longitudinal research will also advance our knowledge of the causal relationships in the model. In addition, all the variables in the current model were collected from a single survey. While this is less of an issue due to the objective nature of the plan choice variable, the common source represents a limitation.

Fourth, it is important to investigate the way in which benefit plan offerings influence workforce composition. The current study illustrates that certain benefit options are systematically related to certain employee traits. Establishing links such as these has profound implications for the strategic use of employee benefits to attract and retain employees with particular qualities. Future research should investigate the extent to which the results found in this study apply to between-firm choices as well as within-firm flex benefit choices, organizational attractiveness, and turnover.

Finally, this study suggests that there may exist a paradox in flexible benefit plans that limits their ability to be used strategically. To the extent to which the flexibility allows employers to accommodate all employee's benefit preferences, then the benefits will have a magnitudinal impact (more applicants) but not a compositional impact (fewer unqualified applicants). That is, only when benefit offerings are strategically limited to be unattractive to people who do not have the characteristics needed by the organization will the benefits strategically help the organization differentiate among applicants. Therefore, organizations need to consider whether the ultimate goal of employee benefits is to indiscriminately attract and retain employees or if they have the potential to attract and retain employees in a strategic way that is consistent with their business objectives. In summary, this study has advanced our knowledge of flexible benefit plans and employee preferences.

Table 1. Correlations Among Trait, Cognition, Outcome, Demographic and Control Variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Traits																
1. Risk Propensity																
2. Locus of Control of Health	.20*															
Cognitions																
3. Benefit Plan Use	-.17*	-.10														
4. Benefit Importance	-.10	-.15	.17*													
Outcomes																
5. Plan Choice†	.18*	.18*	-.19*	-.18*												
6. Benefit Satisfaction	-.06	.20*	.03	.02	.08											
7. Distributive Justice	-.15	.07	.16*	.19*	-.09	.60**										
8. Procedural Justice	-.02	.04	.01	.19*	-.02	.56**	.49**									
9. Overall Job Satisfaction	-.17*	-.04	-.01	.17*	.04	.25**	.29**	.17*								
Demographics and Controls																
10. Classified Employees	-.12	-.08	.08	-.03	-.15	.18*	.15	.16	.15							
11. Professional Employees	.05	.09	.03	.02	.11	-.05	.06	-.04	.02	-						
12. Faculty Employees	.07	.01	-.12	-.02	.06	-.14	-.21**	-.14	-.21*	-	-					
13. Age	-.18*	-.07	.04	.11	-.22**	-.03	-.06	.10	.02	.02	-.13	.12				
14. Years Employed	-.13	-.05	.03	.01	-.08	-.11	-.24**	-.07	-.09	-.09	-.05	.17*	.67**			
15. Gender	-.16*	-.03	.03	.01	-.12	.12	.25**	.14	.09	.257**	-.08	-.21**	.06	-.06		
16. Number Insured	.05	-.04	.03	.01	.06	.04	.03	.01	.06	.05	.01	-.07	-.19**	-.17*	-.21**	
17. Salary Level	.15	.11	-.09	.00	.11	-.15	-.25**	-.06	-.16*	-.64**	.06	.67**	.21**	.35**	-.37**	-.07

n = 155, *p<.05, **p<.01. † The high contribution plan was coded 0, while the low contribution plan was coded 1. For gender, male was coded 0, female was coded 1.

Table 2. Discriminant Function Analysis Tests for the Equality of Group Means for Benefit Plan Choices

	Low Contribution Plan		High Contribution Plan		
Scale	M	SD	M	SD	F
Traits					
Locus of Control of Health	3.19	.68	2.87	.88	4.16*
Risk Taking Propensity	2.34	.98	2.06	.82	4.19*
Cognitions					
Expected Use of Benefits	4.08	1.16	4.56	1.21	5.67*
Importance of Benefits	2.09	1.06	2.57	1.23	5.70*
Professional Employees	.47	.50	.36	.48	1.58
Faculty Employees	.26	.45	.21	.41	.64
Classified Employees	.26	.45	.42	.50	3.51
Age	3.72	1.03	4.21	1.15	7.19**
Years Employed	10.83	8.18	12.18	9.83	1.11
Gender	1.51	.50	1.62	.49	1.86
Number Insured	3.43	1.74	3.23	1.96	.39
Salary Level	3.58	1.62	3.20	1.76	1.71

n = 155, *p<.05, **p<.01.
Controls: age, number of insured, gender, salary, job classification

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