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BUDGET PARTICIPATION: INTERACTION EFFECTS OF WORK ENGAGEMENT AND EMPOWERMENT

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Abstract

This study investigates the two-way interaction effects of work engagement and empowerment on the degree of employees' budget participation industry in Scotland. Data are collected from 159 employees via an online questionnaire and analyzed using multiplicative regression analysis. The results confirm the presence of a two-way interaction effect between work engagement and empowerment on the degree of budget participation at a statistically significance level ($p = 0.0002$). Further analysis indicates that the higher the empowerment, the greater its enhancing effect on the positive relationship between work engagement and the degree of employees' budget participation. This study provides one of the first empirical evidence of a contingent relationship between work engagement and budget participation over the range of the level of empowerment. Consequently, the results have contributed insights to the literature in facilitating our understanding of both the moderating role of empowerment and extending the boundary conditions on work engagement and budget participation association. Human resource personnel and management can consider the application of empowerment as a potential intervention strategy to boost the productivity and performance of employees resulting from the latter's increased participation in the budget-setting process.

Keywords: empowerment, work engagement, budget participation, interaction effects, financial industry

INTRODUCTION

Budget participation has been the subject of many studies in the accounting and organization literature (Chong et al. 2006; Hassel and Cunningham 1996) in light of its links to outcomes such as job satisfaction (Jermias and Yigit 2013; Silva et al. 2003), performance (Govindarajan 1986; Lau and Lim 2002) and work attitudes (Kenis 1979; Milani 1975). Insights from research would benefit organizations and their employees because of its effects on the wellbeing and performance of employees. Additionally, studies have documented the relationships between work engagement and empowerment on budget participation performance (Heath and Brown 2007; Macinati et al. 2020). However, few studies have specifically examined the combined influence of work engagement and empowerment on employees' level of budget participation. Therefore, this study aims to test the two-interaction effects of work engagement and empowerment on employees' budget participation.

Examining the higher-order relationships of variables on budget participation would contribute insights to the literature in facilitating our understanding of the moderating role empowerment and extending the boundary conditions on the work engagement and budget participation association. Human resource personnel and management can consider the application of empowerment as a potential intervention strategy to boost the productivity and performance of employees resulting from the latter's increased participation in the budget-setting process. While the current study is conducted in the context of the Scottish financial industry, the findings would be equally applicable and beneficial to organizations in other industries and the public sectors, as well as in countries where the practice of budget participation is in place.

Considering the Scottish financial industry contributes approximately £8.80 billion, which is more than 8% of onshore

activity to the economy (HM Government 2013), its performance profoundly affects other industries and the economy (Larreina 2008). The competitive nature of the industry means employees are required to maintain exemplary performance despite the stress that arises from dealing with immense volumes of money. Since there is a lack of tangible resources involved in financial services compared to other industries, organizations derive a higher proportion of value from their employees and view them as a premium commodity (Crosby et al. 1990; Petty and Guthrie 2000). By leveraging the skills and knowledge of the highly educated workforce, financial institutions can increase their output per employee and subsequently enhance overall productivity. Studies have shown that adopting a high employee involvement culture can increase performance, profitability, productivity and lower employee turnover (Nouri and Parker 1998; Harter et al. 2003; Riordan et al. 2005). From an economic viewpoint, budget participation is one form of employee involvement that serves to enhance the productivity of the organization by developing mental and professional capabilities whilst reducing the information asymmetry amongst various levels in the organizational hierarchy. Alternatively, Bryer (2014) adopts a critical perspective approach to highlight the relevance of budget participation in shaping and facilitating social capabilities and innovation. However, the prevailing stress levels and complexity of work in the financial industry can potentially lead to employees using budget participation as an opportunity to create budgetary slack (Fanani and Saudale 2018) or manipulate workloads (Elnaga and Imran 2013). Thus organizations must be prudent when implementing such productivity enhancement measures.

Budget participation has received copious scrutiny from management accounting academics over the last fifty years, likely due to the pivotal role it plays in organizational efficiency (Jermias and Yigit 2013). Poon et al. (2001) define budget

participation as the process whereby a manager has involvement in and influence on the determination of his or her budget. Given that over the years, employees have demanded increasing involvement in management decisions (Nykodym et al. 1994), this definition can be expanded to employees in a variety of positions across the organizational structure. Most studies have adopted Milani's (1975) view of budget participation as a multi-dimensional process (Nouri and Parker 1998; Lau and Lim 2002; Kyj and Parker 2008), although there are variations, including the two-dimensional aspects of influence and communication of the participants during the process (Hassel and Cunningham 1996; Maiga 2005). Budget participation is extremely valuable in organizations as it represents a mutually beneficial process involving the reduction of information asymmetry through increased knowledge-sharing interactions (Zainuddin and Isa 2019) and facilitates more meaningful budgets that are developed. Through enhanced feelings of self-efficacy and trust, it has a clear positive impact on job performance, job satisfaction, and organizational commitment for employees (Chong et al. 2006; Widiawati and RS 2019). Despite the importance of budget participation as a mechanism for improving productivity and involving employees in decision-making, limited academic attention has been given to its antecedents. Kyj and Parker (2008) were in the minority who approached budget participation from this perspective by investigating the organizational drivers. Their findings reveal that leadership styles that take greater account of employee needs tend to foster higher levels of budget participation and link this association to the concept of organizational justice. However, their study only tells half the story: employee attitudes and desirability to participate is still a relatively untouched area of research.

Although the Scottish financial industry has experienced an expansion in recent years (Office of the Chief Economic Adviser 2019a), productivity figures paint a

bleaker picture. For example, Rogers and Richmond (2016), who report on the use of participation as a measure of productivity show that the UK has the second-lowest participation level among its employees vis-à-vis other countries in the EU. More specifically, the Scottish financial and insurance industry was the third largest contributor (7.4%) to the declining productivity in Scotland (measured as Gross Value Added (GVA)), beaten only by the wholesale and retail trade and the professional and scientific services industry (Office of the Chief Economic Adviser 2019b). Due to its extensively reported benefits involving extra-role performance, creativity, and productivity (Bakker and Demerouti 2008), work engagement has long been sought after by management as a remedy to this productivity decline. However, perhaps the fixation on work engagement as a universal solution overlooks its role as a driver of other positive job-related attitudes, such as affective organizational commitment, employee participation, and job satisfaction (Schaufeli 2013). By gaining an understanding of the factors that positively influence work engagement, management has an improved chance of engendering budget participation.

In the largely individualistic and meritocratic Scottish culture (Minkov et al. 2017), engaged employees seek particularistic returns from their interactions with the organization in lieu of their high performance and discretionary effort. Hence, if an employee deems interactions to be unfair or futile, there is a possibility that they will experience emotional exhaustion and collaborate less with team members (Howard and Cordes 2010). Additionally, compared to collectivistic cultures like in Asia, employees require a greater motivation to participate as they believe that individual decisions (made by their superiors) are more effective than those made co-operatively as a group (Hofstede 1980; Harrison 1992). An array of literature cites the importance of empowerment when engaging employees and encouraging participation (de Villiers and

Stander 2011; Tuckey et al. 2012; Mills and Ungson 2003). For successful budget participation, there needs to be harmony between personal and situational factors. For example, employees will be more prepared to engage in the budget-setting process when participation is encouraged in the organization. However, if they do not feel empowered, then they will be demoralized and lose their motivation to participate. In consonance with Maslow's (1954) self-actualization level of one's hierarchy of needs, empowered employees exhibit increased team performance as they are granted elevated levels of autonomy, responsibility, creativity, and information (Yang and Choi 2009). Collectively, existing literature suggests that a rise in empowerment leads to higher employee engagement levels and a subsequent increase in job involvement (Bryer 2014; May et al. 2004; Stander and Rothmann 2010; Ugwu et al. 2014).

The aforementioned overview highlights the association of work engagement, empowerment, and budget participation with the low productivity levels in the Scottish financial industry. Since budget participation encompasses the idea of increased communication and flattening of the traditional hierarchical structure through the inclusion of lower-level employees in decision-making (Poon et al. 2001), the Social Exchange Theory will be employed as a framework for studying the influence that the interaction effect has on an employee's propensity to engage in budget participation. The model proposes empowerment as a particularistic reward that instils work engagement and encourages teamwork in what is predominantly an individualistic culture. For the financial industry, the study presents the opportunity to conduct empirical analysis on the interaction effects of multiple variables, considering the underlying intricacy of budget participation. The findings of this study may contribute to knowledge in a multitude of ways and provide a springboard for future research into budget participation in the Scottish financial

industry:

- Using an interactionist approach, the study shall address the recommendation by Govindarajan (1986) to examine the variables conducive to favorable budget participation outcomes. Investigation of the interactive relationship enables the generation of insights to inform future literature (Chia and Chu 2017). Also, studies have observed that the examination of interactive relationships is at the core of theories concerning person-situation fit and individual performance, among others (Mathieu et al. 2012; Bosco et al. 2015).
- Studies into why financial institutions locate themselves in Scotland predominantly cite the reputation, highly skilled workforce, and quality of Scottish universities as driving factors (Larreina 2008). As such, the findings of generic management research conducted in other industries may not be applicable to the disproportionately high education levels and skills of the Scottish financial industry workforce. The findings may rectify any previous mis-generalizations.
- By analyzing the moderating role of empowerment on the relationship between work engagement and budget participation in the context of an individualistic culture, the research can help management cultivate a more participative culture through evidence-backed initiatives.
- Finally, the use of the social exchange theory to examine the impact of work engagement and empowerment on an employee's propensity to engage in budget participation takes the novel approach of viewing causality as a result of interactions between the

employee and the organization.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Social Exchange Theory

Despite a minority suggesting that traditional social exchange theory has diminishing relevance in modern organizations (Chernyak-Hai and Rabenu 2018), the consensus among academics still stresses its importance (Cropanzano and Mitchell 2005; Frieder 2018; Mitchell et al. 2012). The theory aptly provides a framework for which an investigation can be conducted into the effect of work engagement and empowerment on budget participation. Blau (1964) defines social exchange theory as '... the voluntary actions of individuals that are motivated by the returns they are expected to bring and typically do in fact bring from others'.

The prevalent rule of exchange is reciprocity, whereby employees exchange resources in a mutually beneficial manner (Frieder 2018); budget participation presents an opportunity for engaged employees to contribute to organizational performance beyond the scope of their traditional role, whilst superiors benefit from the reduction in information asymmetry through knowledge-sharing interactions (Zainuddin and Isa 2019). The self-reinforcing cycle of interactions is driven by the particularistic and universalistic resources exchanged between superior and subordinate – love, status, information, money, goods, and services (Foa and Foa 2012). Hence, an engaged employee views budget participation as an opportunity to address the constraints on their performance and elevate their status within the organization. A literature review by Folger and Cropanzano (1998) highlights the resultant effect of an employee's view of organizational justice on participation, whereby they will respond poorly to an outcome that is perceived as unfair (distributive justice) and search for an

explanation as to why it happened (procedural justice). As such, if an employee believes their organization is treating them fairly, they are more likely to be engaged and make a meaningful contribution to budget participation.

Relationship between work engagement and budget participation

Budget participation is an effective enhancer of performance in highly difficult situations in the financial services industry (Lau and Tan 1998). Work engagement is a factor related to budget participation in the sense that engaged employees are optimistic about situations and believe they can satisfy their needs through participation in organizational activities (Bakker et al. 2011). At an organizational level, work engagement mimics the flattening of the organizational structure experienced in budget participation practices, as it is primarily instilled through sound organizational culture, leadership and style of management, as well as the level of communication and trust (Lockwood 2007).

The theoretical connection between work engagement and budget participation can be found in organizational citizenship behavior, whereby engaged employees think outside the box and look beyond the scope of their formal role (Demerouti et al. 2010; Feather and Rauter 2010). The literature suggests that the core values of burnout, which include exhaustion and cynicism, and engagement which includes vigor, dedication and absorption, are opposites of each other (González-Romá et al. 2006). As such, while burnout is negatively correlated to citizenship behavior in organizations (Chiu and Tsai 2006), work engagement has been observed to be positively related to citizenship behavior (Babcock-Roberson and Strickland 2010). Organizational citizenship behavior engenders budget participation as employees with higher levels of citizenship behavior have been reported to exhibit increased knowledge sharing interactions and strived to perform in ways that are beneficial to the wider organization, although this type of behavior has yet to be officially

recognized by traditional particularistic rewards including financial incentives and perks (Teh and Sun 2011; Emami et al. 2012; Zainuddin and Isa 2019).

Main-order regression results from the study of Shuck et al. (2011) show that increased levels of work engagement are associated with higher levels of discretionary effort, which involves going beyond the traditional scope of one's role. Recognizing that discretionary effort is akin to that of engaging in budget participation, it is reasonable to adopt the results of the study as the basis to inform the current investigation. Albrecht et al. (2015) further demonstrate that engagement can lead to a combination of individual outcomes, including increased job satisfaction, organizational commitment, and extra-role performance. Conversely, employee disengagement has been cited as the source of numerous negative outcomes, such as low morale, isolation, reluctance to accept feedback, more conflict, absenteeism, and a lack of desire to learn (Allam 2017). Judging from the adverse effect of disengagement and combining with the literature alluding to the extensive benefits of work engagement relating to organizational citizenship behavior, it is possible that work engagement will have a positive impact on an employee's propensity to engage in budget participation.

Relationship Between Empowerment and Budget Participation

Definitions of empowerment generally contain aspects that are related to budget participation, in particular, those areas regarding the granting of authority, the ability to influence organizational outcomes, and increasing employee self-determination (Butts et al. 2009; Hanaysha 2016). Studies have also identified that employee involvement methods are wide-ranging from the likes of quality circles to participation in decision-making (Bodenhausen and Curtis 2016). These employee involvement methods share commonality with budget participation in the sense that the employee is being given a voice and a vote of confidence

(Hamed 2009). Likewise, employment involvement schemes exist to unlock the valuable skills and knowledge of employees; in the same way, empowerment is used to challenge employees and facilitate their contributions so as to increase their value to the organization (Riordan et al. 2005).

Under social exchange theory, empowered employees may wish to extend their perceived level of control obtained (through task delegation resulting from the trust given by their superiors) by engaging in decision-making activities that govern their role, for which budget participation is one (Keller and Dansereau 1995). The series of mutually beneficial interactions often begin with superiors who initially signal for a closer relationship with subordinates by empowering them with a task or responsibility (Keller and Dansereau 1995). When the subordinates complete job tasks to a standard accepted by their respective superiors, they receive recognition and are more inclined to behave in a manner that benefits the organization proactively. Employees who perceive themselves to have gained the trust of their superiors to make meaningful contributions are more inclined to be engaged and perform to a higher standard (Holbeche and Springett 2004).

Multiple studies report that empowerment leads to employee participation through increased goal congruence with the organization and the opportunity to control their work (Hamed 2009; Karia and Asaari, 2006). Moreover, Zhang et al. (2017) posit that empowerment engenders innovative behavior, subsequently increasing the chances of an employee engaging in budget participation. The autonomy derived from empowerment encourages employees to fine-tune their working strategy as they improve their knowledge and ability (Liu et al. 2011). The aforementioned points suggest that the link between empowerment and budget participation is built upon the idea of employees changing their mindset and taking risks to challenge themselves in an organizational setting (Hamed 2009).

Interaction effect between work engagement and empowerment on budget participation

Within the framework of the Job Demands-Resources (JD-R) model, the workplace environment in the Scottish financial industry can generate two possible outcomes for employees: burnout may occur when job demands (i.e. work overload, excessive emotional demand) exceed job resources (i.e. opportunities to learn, autonomy, perceived organizational support), whereas an employee will be engaged if the inverse is true (Schaufeli et al. 2009; Schaufeli and Bakker 2004). Since Llorens et al. (2006) refer to job resources as "... aspects of the job that are functional in achieving work goals, reduce job demands, or stimulate personal growth, learning, and development", it is argued that empowerment falls into this category. Stander and Rothmann's (2010) results attest to this observation by indicating that empowerment has a positive effect on work engagement. Given that empowered employees experience feelings of self-efficacy (Kim and Beehr 2017) as well as a reduction in emotional strain and cynicism (Livne and Rashkovits 2018), empowering initiatives will increase the likelihood of encouraging employees to be more engaged in their job tasks. When employees are empowered and made to feel valued, both their work engagement and creativity levels will increase (Sun et al. 2012). These levels of increased creativity and engagement could have significant implications for their propensity to engage in budget participation as well. On the contrary, disengaged employees are less enthusiastic and innovative (Pech and Slade 2006); therefore, the effects of empowerment are likely to be weaker.

Drawing upon the reverse causality proposed by the JD-R model (Bakker and Demerouti 2014), employees in the Scottish financial industry will actively seek to utilize job resources in order to stay engaged. The reciprocal nature amongst the variables is confirmed by Xanthopoulou et al. (2009), who report bi-directional positive

associations between work engagement and job resources. To maintain high engagement levels, employees may exhibit 'job crafting' which is "... the physical and cognitive changes individuals make in their task or relational boundaries" (Wrzesniewski and Dutton 2001). For the purposes of the current study, the changing of relational boundaries applies to budget participation whereby the engaged employees can address the constraints on their performance that were previously out of their control.

Engaged employees producing high quality and quantities of work will attempt to identify constraints on their performance in light of the motivation that is derived from their innate tendency for growth within their workplace (Deci and Ryan 2012). As such, budget participation may be seen as a method of testing themselves and further demonstrating their high performance by setting challenging goals. Based on the foregoing, it can be postulated that the strength of the positive relationship between work engagement and budget participation will increase according to a rise in empowerment levels. The discussion leads to the following hypotheses for testing:

- H₁: There is a two-way interaction effect between work engagement and empowerment on employees' budget participation in the Scottish financial industry.**
- H₂: The higher the level of empowerment, the greater its positive effect on the relationship between work engagement and employees' budget participation in the Scottish financial industry.**

Whilst it is commonly accepted that both work engagement and empowerment individually have a positive association with budget participation, the inclusion of a higher-order relationship acknowledges the causal intricacy of employee behavior variables (MacKinnon 2011). Hypothesis H₂ is advanced as an enhancing interaction

through which "... both the predictor [work engagement] and moderator [empowerment] affect the outcome variable [budget participation] in the same direction, and together they have a stronger effect than a merely additive one" (Cohen et al. 2003). In the context of the Scottish financial industry, the above discussion illustrates that as an employee's levels of empowerment increase, so too do work engagement levels. Thus the likelihood of engaging in budget participation increases accordingly.

RESEARCH METHOD

Research site and participants

The data were part of a larger questionnaire survey conducted on the determinants of individual outcomes of employees. The respondents were a representative sample of employees in the financial industry in Glasgow, Scotland. Glasgow was identified as the research site in view of its pivotal role in the Scottish financial industry, housing major operations of various international financial services companies such as JP Morgan, BNP Paribas, HSBC, Barclays, and Morgan Stanley. Likewise, Glasgow and Edinburgh aid the generalizability of the study, considering they operate in the same regulatory jurisdiction as London, the largest financial centre in Europe (HM Government 2013). Local knowledge and contacts of one of the authorshelped in the collection of data from a purposive, convenience sample. The human resource departments of 3 companies were contacted to distribute the questionnaires and given reassurance on the anonymity of respondents so as to increase the quality and quantity of data obtained. The selection of white-collar respondents in the financial sector provided further comfort that the concepts and language in the questionnaire would be understood.

The average number of employees in each organization was greater than 400. Of the 225 questionnaires distributed, there were

159 usable questionnaires in the final analysis, giving a response rate of 70.67% (159/220). In the usable sample of respondents, there were 80 females, 76 males, and three respondents abstained from indicating their gender. The age group for the sample respondents was rather dispersed, with 86 (54.1%) of the respondents under the age of 30. 57.8% of the respondents were tertiary degree holders.

Variables

This study investigates individual perceptions of three variables, namely, work engagement, empowerment and budget participation. In the context of their working environment, work engagement and empowerment are both perceived by the respondents, and how they react to these variables is reflected in their perceived degree of budget participation. The responses to the various variables were measured using a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Budget Participation

Budget participation is measured using a six-item scale created by Milani (1975) that assesses respondent involvement and influence on the budget process (Kyj and Parker 2008). The Likert-scale responses varied for each question, yet all related to the aspects of involvement and influence. Other studies confirm the applicability of this measure to organizational research by reporting high validity and reliability (Nouri and Parker 1998; Lau and Lim 2002; Kyj and Parker 2008). For instance, all studies observed a Cronbach's alpha coefficient greater than 0.84.

Work Engagement

In relation to the three components of work engagement discussed in the literature review and hypotheses development, the Utrecht Work Engagement Scale (UWES) is a nine-item measurement scale that assesses employee vigor, absorption, and dedication (Schaufeli et al. 2002). The Likert-scale is based on how frequently an employee

Table 1
Descriptive statistics (n=159)

Variables	Mean	Standard deviation	Range	Cronbach alpha coefficient	KMO value
Work engagement	4.82	0.93	1.67-7.00	0.91	0.90
Empowerment	5.97	1.19	2.60-7.00	0.89	0.81
Budget participation	2.90	1.61	1.00-7.00	0.91	0.90

experiences the feelings in question, ranging from 1 (never) to 7 (always). Numerous studies have used the scale, and all report Cronbach's alpha values greater than 0.80 (Montgomery et al. 2003; Nerstad et al. 2010; Schaufeli et al. 2002).

Empowerment

Spreitzer's (1995) twelve-item empowerment scale is an adaptation of numerous other scales which examined pertinent constructs, including meaningfulness, competence, self-determination, and impact. To qualify for use, each construct measurement had to be easy to administer, possess low discriminant validity, and focus on individual experiences of empowerment (Spreitzer 1995). Studies by Pelit et al. (2011) and Elloy (2012) demonstrate high internal reliability using the scale, with Cronbach's alpha values of 0.86 and 0.89, respectively.

Analytical approach

In the current study, the respondents operate within the same legal work regulations and possess similar individualistic culture and values as the general population. The assumed population homogeneity from these considerations validates the application of regression analysis (Chia and Chu 2017). Considering the study examines how the nature (differential prediction), as opposed to strength (differential validity), of the relationship between work engagement and budget participation, varies as a function of

empowerment, moderated multiple regression is the appropriate method of testing (Carte and Russell 2003). In this form of analysis, a multiple regression equation is employed to test the hypotheses whereby the dependent variable (i.e. budget participation) is modelled as a function of the independent variables (i.e. work engagement and empowerment). The focus of the study on the significance of the two-way interaction term allows for differential predictions on budget participation to be made (Chia and Chu 2017).

RESULTS

Generally, the results suggest that the two age groups of over- and under-30 years old, do not have different priorities and expectations with respect to these three variables. This observation may enable financial organizations to be more efficient in their management as they now have insights into any potential generational issues relating to the behavior and motivational aspects of their staff.

Table 1 displays the descriptive statistics of the sample population. Following the recommendations for a sample size of more than 150, two items from the instrument for measuring empowerment (relating to confidence and self-assurance) were dropped in the final analysis as the factor loading values did not meet the threshold value of

Table 2
Correlation matrix of the variables

Variables	Work engagement	Empowerment	Budget participation
Work engagement	1.00	0.65 (p<0.0001)	0.32 (p<0.0001)
Empowerment		1.00	0.42 (p<0.0001)
Budget participation			1.00

0.45 (Hair et al. 2014). The responses of all items in each variable are computed to form a mean score. A high mean score denotes a high level of the particular variable. Similarly, a low mean score will denote a low level of the particular variable. The results of the confirmatory factor analysis indicate an acceptable model fit with normed Chi-square (χ^2) statistics as follows: $\chi^2 = 1121$ and $df = 249$, thereby resulting in a ratio value of 4.50 and which is considered an acceptable fit (Hair et al. 2014). The other fit indices (GFI = 0.92, CFI = 0.96, RSMEA = 0.0635, NFI = 0.93, NNI = 0.95) are consistent with acceptable guidelines to suggest a reasonably

good model fit as well (Hair et al. 2014).

In respect of internal reliability and construct validity, all three variables exceeded their respective acceptable thresholds of 0.70 and 0.60 for Cronbach's alpha values and Kaiser Meyer-Olkin (KMO) measure of sampling adequacy, respectively (Pallant 2020). Table 2 presents the Pearson Product Moment Correlation Coefficient and the corresponding one-tail p -values for each variable. Multicollinearity is not a concern in this study because the correlation values are lower than 0.70 (Pedhazur 1997)

Table 3
Results of multiple regression analysis with budget participation
(Y) as the dependent variable (n=159)

Variables	Equation (1) Regression coefficient (Standard Error) <i>t</i> -value <i>p</i> -value	Equation (2) Regression coefficient (Standard Error) <i>t</i> -value <i>p</i> -value
Work engagement (X ₁)	0.15 (0.17) <i>t</i> = 0.88 <i>p</i> = 0.3789	-2.02 (0.59) <i>t</i> = -3.43 <i>p</i> = 0.0008
Empowerment (X ₂)	0.55 (0.15) <i>t</i> = 3.75 <i>p</i> = 0.0002	-1.10 (0.46) <i>t</i> = -2.42 <i>p</i> = 0.0167
Interaction between (X ₁) and (X ₂)	–	0.36 (0.09) <i>t</i> = 3.82 <i>p</i> = 0.0002
Variance (R ²)	18.00%	25.00%
Change in variance (R ²) [Due to inclusion of interaction term in Equation (2)]	–	7.00%
<i>F</i> -value	16.75 <i>p</i> < 0.0001	17.00 <i>p</i> < 0.0001

Table 3 presents the regression results of the study. The difference between Equation (1) and Equation (2) in this table is that the latter contains the additional two-way interaction term of work engagement and empowerment. The statistically significant interaction term (*t*-value = 3.82 at *p* = 0.0002) in Equation (2) provides support for Hypothesis H₁. The inclusion of the interaction term in Equation

(2) results in an increase in variance (R²) of 7.00% over Equation (1). This increase explains 7.00% of the degree of employees' budget participation (Jaccard et al. 1990). The multiplicative approach, as applied in Chia (1995) and Chia and Chu (2016, 2017), is adopted to compute the partial derivative of Equation (2) over X₁ (work engagement).

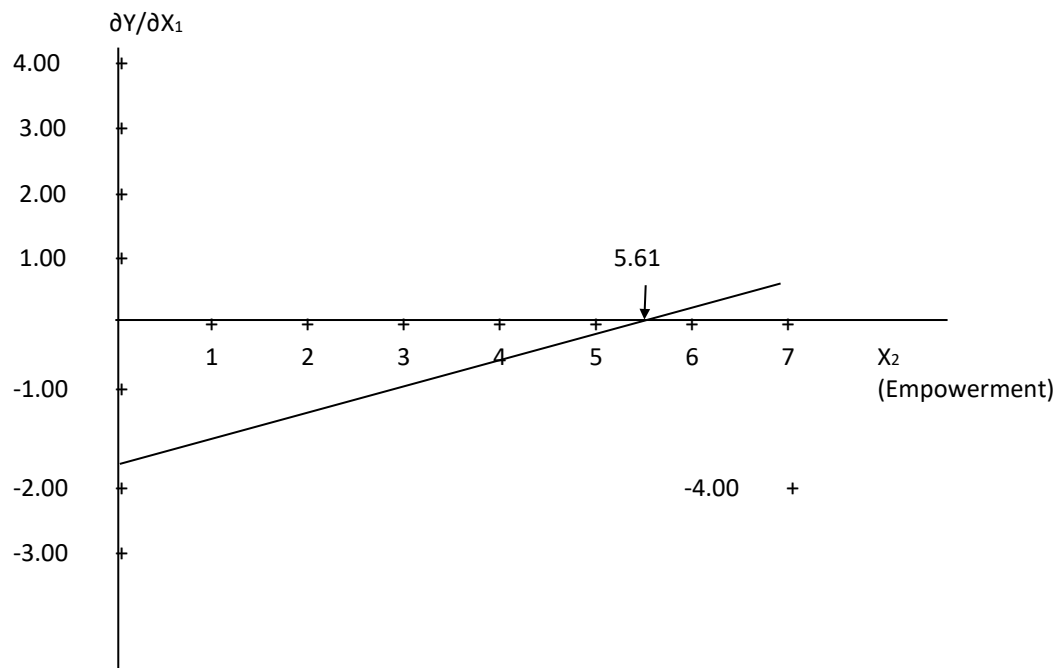


Figure 1

Graph showing the effects of empowerment (X₂) on the relationship between work engagement (X₁) and budget participation (Y)

This results in Equation (3):
 $\partial Y/\partial X_1 = -2.02 + 0.36 X_2$ --- Equation (3)

In Equation (3), the influence of work engagement on budget participation is a function of the level of empowerment (X₂). When $\partial Y/\partial X_1$ in Equation (3) is set to zero, the point of inflection at X₂ is 5.61. Since the value of the point of inflection is within the range of observable values (1.00 - 7.00) for X₂, it will be possible to interpret the results of Equation (3) (Chia 1995). When X₂ moves away from the value of 5.61 towards zero, Equation (3) will be increasingly negative. When X₂ moves away from the point of inflection towards 7.00, Equation (3) will be increasingly positive. Equation (3) is displayed in Figure 1 as shown.

The graph shows that as X₂ increases, the slope of the partial derivative for Equation (3) is increasingly positive after the point of inflection. Before the point of inflection, the slope is increasingly negative when X₂ decreases. This change of direction in the graph indicates that work engagement has a contingent effect on employees' budget

participation over the range of levels of empowerment.

The analysis of the results implies that the association between work engagement and budget participation will be positively enhanced as the level of empowerment increases, thus providing support for Hypothesis H₂. Besides demonstrating the consistency of the theoretical discussion for the research model, the following remarks are presented:

- The analysis of results aids in identifying the significant role of the interaction term in explaining budget participation, as shown by the small effect size of 7.00% in the interaction term (Bosco et al. 2015). The small size effect will necessitate the adoption of caution when judging the effect of the interaction in the context of the research site as well as the generalizability of these results.
- For employees in the financial industry, the association between their work engagement and budget participation is non-monotonic

when their levels of empowerment are considered simultaneously. This implies that under conditions of increasing level of empowerment (that is, after the point of inflection as in Figure (1), the effects on the association between work engagement and budget participation are also positively increasing.

CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH DIRECTIONS

This study has discussed the interaction effects of work engagement and empowerment on the degree of budget participation of employees within the JD-R theoretical framework. The proposed hypotheses are supported by the results of regression analysis of data collected from a questionnaire survey. The findings yield insights into the common challenge of organizations in getting their employees to participate in the budget-setting process. The results indicate an enhanced interaction effect between work engagement and empowerment, explaining 7.00% of the degree of budget participation of employees at a statistically significant level ($p = 0.0002$). Further analysis of the results indicates that work engagement has a non-monotonic effect on budget participation over the range of the levels of empowerment of the employees. The moderating role of empowerment suggests that the variable can be utilized as an intervention strategy to encourage and motivate higher degrees of budget participation for the engaged employees by management. The finding is the major contribution of the study because it furthers our understanding of budget participation in the financial industry in Scotland and should hopefully inform management in other industries and locations as well.

Additionally, management has a better awareness of how positive psychology

variables (e.g., work engagement and empowerment) interact to affect the degree of budget participation of employees. More specifically, the enhanced interaction effect enables management to understand better the 'how' and 'why' of managing employees to participate in the budget-setting process. The adoption of the interactionist approach within the JD-R framework facilitates an extension of the theoretical boundary conditions of prior studies on budget participation, information that will otherwise not be available when only main-order relationships of work engagement-budget participation and empowerment-budget participation are examined in isolation. The managerial and theoretical implications arising from these findings will be discussed next. These implications can help to prepare the stage for important future research on budget participation and other employee involvement activities in organizations.

The first managerial implication relates to the Scottish financial industry, which manages approximately £800 billion in funds (Scottish Financial Enterprise 2017). The results of this study, combined with existing literature, emphasize the importance of productivity in such a valuable industry. The enhancing interaction effect (Cohen et al. 2003) strengthens an employee's engagement level through a more accurately aligned person-situation fit. If the moderator (empowerment) is not included in the research model, the study would neglect to acknowledge the importance of development opportunities, and self-actualization needs when increasing an employee's propensity to engage in budget participation. Conversely, employees who perceive themselves to be of limited value to the organization – a feeling exacerbated by a lack or a total absence of empowerment – have a greater tendency to become disengaged (O'Brien et al. 2004). Thus, management in the Scottish financial industry should look to empower employees when raising productivity through budget participation.

The second managerial implication relates to the adoption of social exchange theory in explaining the relationships in this study. The findings suggest that organizations should consider their interactions with employees as more than just an exchange of universalistic and particularistic rewards in return for work carried out by an employee. The concepts of justice, reciprocation, and relationship building through exchanges are cornerstones of organizational behavior. The importance that employees place upon the fairness of these interactions is evident from the fact that performance evaluation systems have a strong connection to organizational commitment, organizational citizenship behavior, job satisfaction, work engagement, and productivity (Deepa et al. 2014). In line with the tenets of social exchange theory, there has been a recent trend of organizations catering more to employee needs through the likes of informal feedback systems and flexible working hours. The latter has, in fact, become so popular in the UK that in the year 2018, only 6% of employees worked the traditional working day hours of 9:00 am to 5:00 pm (YouGov 2018). Notably, feelings of significance and respect for employee needs could have the added benefit of improving employee mental health. With 61% of UK employees reporting mental health problems at some point due to work (Business in the Community 2018), this is an area of great concern currently. The identified effectiveness of approaching budget participation from a perspective that is bounded by social exchange theory has the potential to improve the performance of organizations and employees alike.

The third managerial implication is connected to the rapidly increasing presence of computer automation and related technology in the Scottish financial industry, which has increased employee barriers to entry (Larreina 2008). This change implies that employees must redefine their skill sets which will make them a valuable, irreplaceable asset to their organizations. In fact, an estimated 35% of jobs in the UK are

deemed to be in danger of automation by 2033 (Frey and Osborne 2017). With minor tasks in every role being automated, employees must adapt by gathering new skills and generally raising performance in line with the increasing level of work performance from their employers. By demonstrating extra-role performance through activities such as budget participation, employees can enhance their involvement and performance to a level that safeguards them from being made redundant by automation.

The fourth managerial implication suggests that the presence of empowerment as a moderating variable is extremely relevant in the individualistic Scottish culture. Since employees in the financial industry are highly intelligible and require substantial returns on investment for their efforts, empowerment may be the answer to reducing any previous resistance to teamwork and lack of goal congruence (Kiffin-Petersen and Cordery 2003). Managers must ensure that empowering initiatives, such as training or task autonomy, are genuine instances of devolving responsibility because otherwise, the employee may be cynical and question their role within the organization. The results imply that management would benefit from considering the relationship between work engagement and budget participation as partially contingent upon the rewards an employee stands to accrue from the empowering process.

Thus, the four managerial implications of the study illustrate the importance of prudence when using initiatives to increase likes of employee involvement as well as flattening the organizational structure whereby communication and consultation between management and lower-level employees are increased (Morgan and Zeffane 2003).

Theoretically, when combined with other studies that exhibit robust results when using Milani's (1975) self-reported budget participation instrument (Kyj and Parker 2008; Lau and Lim 2002; Nouri and Parker 1998), the internal reliability and validity of

this study confirm its suitability for application in organizational behavior research. Despite its initial use in a company-specific study, the budget participation instrument demonstrates clear appropriateness to wider studies investigating productivity in individualistic cultures.

Consistent with the observations of Andersson et al. (2014), social exchange theory provides strong theoretical justification for the use of empowerment as a moderating variable. The nature of social interactions between organizations and employees indicates that significant results can be derived from considering work engagement and empowerment simultaneously when investigating budget participation. The intricacy of variables affecting budget participation justifies the future use of an interactionist approach through which alternative personal or situational variables are tested.

Additionally, the current study contributes to the literature in the following areas:

- (1) The separate main-order relationships of work engagement-budget participation and empowerment-budget participation help to explain the degree of budget participation within social exchange theory. However, a consideration of the higher-order relationship between work engagement and empowerment results in a synergistic increase in the variance for budget participation.
- (2) The results enable academia to further comprehend variables that drive increased employee participation, in the hope it may inform more relevant insights from future research.
- (3) Examination of the impact of empowerment and work engagement on budget participation is in line with recommendations to extend our understanding of the antecedents of budget participation (Shields

and Shields 1998) and factors that influence positive budget participation outcomes (Govindarajan 1986).

- (4) Although prior research has focused on main-order relationships amongst organizational behavior variables, this study is more reflective of the Scottish financial industry through its acknowledgement of a higher-order relationship.

The existence of an enhancing interaction effect illustrates that elevated levels of empowerment can influence the nature and direction of the positive relationship between work engagement and budget participation. Such a finding brings into question what other variables may impact the main-order relationship and encourage us to appraise our understanding of employee behavior variables. Prior to conducting the analysis, it is useful to note that identifying whether an interaction will be enhancing, buffering, or antagonistic in nature (Cohen et al. 2003) aids in the creation of theory through the identification of correct outcomes.

As with all studies, there are inherent limitations. Firstly, the sheer number of variables affecting an employee's propensity to engage in budget participation makes it hard to attribute movement in the dependent variable solely to the independent variable or moderator. Nouri and Parker (1998) encounter a similar problem when examining the effect of budget participation on organizational commitment. They suggest there is a possibility that another variable, like job satisfaction, could have an influence on organizational commitment, yet it is not examined. Pinpointing the direction of these relationships exactly can be problematic. For instance, three possibilities exist when considering the relationship between work engagement and budget participation; work engagement causes budget participation, budget participation causes work engagement, or a reciprocal relationship exists between work engagement and budget

participation. Experiments that may have a better chance of determining the direction of the relationship fully, however, are hard to apply to a wide number of participants.

Aside from the relationship direction ambiguity, the study does not account for the fact that an employee's propensity to engage in budget participation could be affected by situational factors, not just personal ones. Lu (2011) has observed that the pattern of participation and utilization of resulting information have an impact on budget participation. These variables are not examined and thus limit the usefulness of the present study. Likewise, organizational factors like perceived organizational support, ethical work climate, and career growth opportunities should be accounted for when determining the antecedents of budget participation. Therefore, variables such as dynamics of participants and application of resulting information from the participation process (Lu 2011), perceived organizational support (O'Driscoll and Randall 1999), ethical work climate (Özer and Yilmaz 2011), and career growth opportunities (Nouri and Parker 2013) could also prove relevant for future studies.

The robustness of results would always benefit from a larger sample size as it accounts for a wider range of perspectives at different stages in the organizational structure. Likewise, the convenience sampling method had a number of issues which could be rectified by using a probabilistic method. The main issue concerns the high percentage of young, lower-level employees used in the study, which perhaps skews the representativeness of results in the long run.

Newer employees may experience the 'honeymoon effect' whereby they place greater value on being given additional responsibility as opposed to long-standing employees who are more critical of organizational processes (Arciniega and Menon 2013). It is suggested that future research can adopt an alternative sampling approach or perform longitudinal studies to generate results to complement the current study.

As decision-making becomes more complex and superiors require the expertise of different areas in the organization, participation by lower-level employees has become essential for organizational success (Nykodym et al. 1994). By gaining a deeper understanding of personal and situational factors, academia can identify practical implications which serve to enhance an employee's positive attributes and limit those that are detrimental, herein increasing their overall propensity to engage in budget participation. However, future research must first determine exactly whether a variable is an antecedent or outcome in relation to budget participation. One possible approach to determine if they are outcomes is to use a 'before-after' study whereby the relationship between variables is tested prior to budget participation and then after (Milani 1975).

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