Exploring the link between integrated leadership-in-government, and follower happiness: the case of Dubai

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Megan Mathias, Non-Resident Research Fellow, Mohammed bin Rashid School of

Government, Dubai, UAE

Scott Fargher, Associate Professor, Mohammed bin Rashid School of Government, Dubai,

UAE

Malcolm Beynon, Professor, Cardiff Business School, Cardiff University, UK

Corresponding author

Name: Megan Mathias

Email: megan.mathias@gmail.com

Phone number: +971 56 477 2725

Abstract

This study develops a concept of integrated leadership-in-government as a global and multifaceted construct for the first time in the Dubai and wider Gulf context. Leadership-in-government combines eight public leadership roles articulated in recent literature, as performed by managers at all levels within the government hierarchy. The eight public leadership roles are: accountability, rule-following, political loyalty, network governance, task-orientated, relations-orientated, change-orientated and diversity-orientated leadership. Data is gathered via a survey of over 900 employees in Dubai government organisations. Findings from the empirical analysis suggest that a manager's performance of integrated leadership-in-government has a significant effect on the employee happiness, as measured through job satisfaction and self-perceived performance.

Points for practitioners

Leadership in government involves an integrated set of roles specific to the context of government – making it different to leadership in other contexts. As perceived by employees, leadership within government organisations in Dubai is however similar to leadership within government organisations in Western democracies. Employees report that leadership in government has a positive effect on their happiness, in terms of their job satisfaction and self-perceived performance.

Keywords

Government; integrated leadership; job satisfaction; public leadership; self-perceived performance; happiness

Introduction

The aim of this study is to develop a concept of integrated leadership in government, as a global concept and as a multifaceted construct for the first time in the Dubai and wider Gulf context. As such, the authors are seeking to contribute to the rich seam of scholarship aiming to develop integrative models of leadership (e.g., Chemers, 2014; Hunt, 1991; Yukl et al., 2002), by offering a new synthesis of leadership roles in the public sector building on scholarship such as Van Wart (2012), Fernandez et al. (2010) and Tummers and Knies (2016).

In recent years, literature has emerged emphasising the distinctiveness of leadership in the public sector (Getha-Taylor et al., 2011). This distinctiveness is attributed to many factors, including the contested, but collective, purposes of public leadership, the motivations of its protagonists, the complex nature of its challenges and the contingent need to collaborate through networks, as well as to its context of multi-faceted accountability (Bryson et al., 2015). The literature on leadership in the public sector is new and "fragmentation and conflicting nomenclature continue to be a problem" (Van Wart, 2013: 538). To help overcome potential confusion, we locate the focus of this study as follows. Public leadership is understood to be the full range of activities engaged in by post-holders in public organisations *to influence* others' actions, values and beliefs; it is thus relational, "an interactive process between those we call leaders, the people who choose (or feel forced) to be led by them, and the environment in which their interaction takes place" (t'Hart, 2014: 10).

Public leadership embraces both political and administrative leaders in public organisations, and typically focuses on those holding very senior posts. In this study, we follow the distinction made by Van Wart (2012) and Fernandez et al. (2010) of leadership-in-

government being leadership by those in administrative (non-elected) posts at *all* levels in government organisations. We focus on the leadership of managers in government within their home organisations, and on the effect of the manager's leadership on the employee-as-follower (e.g., Trottier et al., 2008).

Intra-organisational leader-follower relationships have been a major focus in leadership studies, but scholars have typically applied theoretical lenses derived from organisational leadership theories that are not context-sensitive (such as the extensive literature on transformational leadership, including Avolio et al., 1999, and Judge and Piccolo, 2004). Fewer studies have examined leader-follower relationships in government with lenses adjusted to its specific context. This study makes three contributions in this area. First, the study develops and confirms an expanded concept of *integrated leadership-in-government*, bringing together eight roles identified in Fernandez et al. (2010) and Tummers and Knies (2016). Second, the technique of fuzzy clustering, rare in the public leadership literature to date, is employed as an effective means to discern patterns amongst the ambiguous data describing leadership-in-government. Third, the relationship between integrated leadership in the public sector and follower happiness, in the form of individual job satisfaction and self-perceived performance, is examined, including the use of hierarchical regression. 'Happiness' is a major current discourse in the Dubai government (Smart Dubai Office, n.d.), and is now discussed.

The Dubai context for leadership in government

The managers in this study work at all levels and across many parts of the Dubai government, and are both Emiratis and expatriates. As an Emirate within the federation of the United Arab Emirates (UAE), Dubai has its own local government, which handles all policies and authorities not assigned by the constitution to the federal level. The Dubai government

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comprises government departments, arm's-length public corporations, public authorities, councils, centres, and law enforcement agencies.

Discourses of leadership and happiness pervade the Dubai government. 'Leadership' is firstly associated with the Emirate's ruling family, headed by His Highness Sheikh Mohammed bin Rashid Al Maktoum. In everyday conversation, Their Highnesses and their closest appointees are considered 'the leadership'. Expectations of leadership are however not reserved to royalty: the government is promoting the importance of leadership across all levels of administration, for women and especially young Emiratis. On launching a government innovation competition, Sheikh Mohammed Bin Rashid is quoted as saying: "changing the government system requires courage, ideas, and support for innovation and *we consider our employees as leaders*" (WAM, 2015, *authors' emphasis*). Leadership is thus conceived as a set of competencies that can be developed, and if developed successfully, will enable public service innovation and excellence.

A recent study has explored leadership in government in the UAE, of which Dubai is one of the seven constituent emirates (Mathias, 2017). Drawing on rare access to Emirati leaders, the author finds that notions of leadership at senior levels in UAE governments are consistent with the liberal-democracy-rooted contemporary public leadership perspective on the surface, though cultural and institutional differences result in distinct localised dynamics underneath. Leadership in government is innately intertwined with followership of royal rulers; administrative leaders focus on delivering the set national agenda, taking responsibility predominantly for policy delivery rather than policy formulation. In accordance with previously documented cultural preferences, these senior government leaders typically consult but retain decision-making power, and operate within follower relationships that are both personal and professional; cultural preferences also generate a unique in-group arena of

leadership, the cohort of peer (Emirati) leaders, in which long-term relationships are nurtured and often prioritised over any short-term agenda (Mathias, 2017).

In parallel, the government of Dubai has recently adopted a 'happiness agenda' with the purpose of fulfilling citizens' basic, affective, cognitive and eudaimonic needs (Smart Dubai Office, n.d.). Achieving happiness is today upheld as a central task of leadership in the Dubai government. Leader-follower relations at work are seen as a major channel through which citizen happiness can be achieved, as many Emirati citizens are government employees. The UAE Minister for Happiness recently said she would "work with all ministries, government institutions and the private sector to ensure they had the tools needed to improve the lives of their employees" (Al Remeithi, 2016: para.12). This study therefore examines both the presence of integrated leadership-in-government in Dubai, and its relationship to employee happiness.

Measuring leadership in government

Developing and applying appropriate measurement are important contributions to the development of new constructs. Recently, two scales for the measurement of leadership-in-government have been developed. Fernandez et al. (2010) propose a concept of integrated leadership in the (US) public sector, comprising five roles; Tummers and Knies (2016) offer a scale for four roles, arguably with a more senior executive, and European, focus. The development of these scales offers a new opportunity to test the influence of the construct of leadership-in-government.

In this study, we aim to measure the impact of managers' leadership-in-government on job satisfaction and self-perceived performance, as two individual-level factors that contribute towards employees' happiness (Saari and Judge, 2004; Fisher, 2010) and towards organisational effectiveness (Baker, 2011, Tafarodi et al., 1999). Job satisfaction is proven to

have a strong relationship to employee happiness (Fisher, 2010); separately, a study has shown that employees who experience greater happiness report higher performance (Rego and Cunha, 2008). Previous studies have shown that the leadership style of managers affects both the satisfaction and performance of employees (McColl-Kennedy and Anderson, 2002; Dvir et al., 2002), including in the UAE (Yousef, 2000). However, apart from two studies (Fernandez, 2005; Fernandez et al., 2010), the leadership roles tested have typically been global concepts, such as transformational and transactional leadership, even where the sample has been exclusively public sector. This study instead contributes evidence on context-specific leadership-in-government.

Constructing leadership-in-government: roles

Leadership-in-government roles are ways in which public managers support employees to deal with public sector issues (Tummers and Knies, 2016). In this study, eight of the nine roles defined separately in Fernandez et al. (2010) and Tummers and Knies (2016), are blended in order to capture the fullest range operationalised to date in the literature. Definitions for each role within the Dubai context are discussed below.

Accountability leadership. Tummers and Knies (2016: 436) define accountability leadership as *leaders who stimulate employees to justify and explain their actions to stakeholders.* The public sector is characterised by stakeholder interest in *what* public organisations do as well as *how* they do it. Stakeholders are also typically multiple, comprising the formal principals to whom public officials are accountable, alongside citizens, media, legislatures, and delivery partners. Public accountability in Dubai is strongly characterised by formal accountability upwards, but also spans the same wider stakeholder groups; recent developments such as the introduction of elections for the Federal National Council and increasing citizen consultation are requiring public organisations to become more responsive (Alkhatib, 2015).

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Rule-following leadership is defined as *leaders who encourage their employees to act in accordance with governmental rules and regulations* (Tummers and Knies, 2016: 436). Rules, regulations and laws are important tools for governments wanting to control the implementation of their strategies; they also represent procedural rationality legitimized by wider cultural values such as a commitment to the rule of law and professional standards (Olsen, 2006). Governments thus exhibit more rules and regulations than private sector counterparts because they must uphold broader values that constrain what is considered to be procedurally appropriate. Decision-making in the Dubai government is highly centralised, and there is plenty of anecdotal evidence of red tape. Both factors may lead to high levels of rule-following leadership.

Strategic loyalty leadership. Political loyalty leadership is defined by Tummers and Knies (2016: 436) as *leaders who stimulate their employees to align their actions with the interest of politicians, even if this is costly for them*. They cite Kleinig (2007) to argue that loyalty becomes evident when people continue to show commitment to the interests of the object of the attachment, even if such commitment is costly. Political loyalty leadership then refers to managers' encouragement to their teams to demonstrate loyalty even when it may clash with other loyalties and values they may hold. Loyalty can also be considered strategically important to the leaders of Dubai, who perceive the country to be under existential threat, and may therefore again be strongly evident here (The National Staff, 2015).

Networked governance leadership responds to the contemporary demands on public leaders to work with others to tackle complex problems, and is defined as *leaders who encourage their employees to actively connect with stakeholders* (Tummers and Knies, 2016: 436). Senior public leaders in the UAE operate across multiple arenas (Mathias, 2017), though government often retains primary control; the extent to which networking is promoted for employees at lower levels is not yet clear. However, building connections is an important

Emirati cultural practice. Networked governance leadership, encouraging and allowing for the creation of relationships outside the immediate team, is thus a highly relevant leadership role in Dubai, and culturally nuanced.

Task-oriented leadership. Fernandez et al. (2010) cite Bass (1990) to define task-oriented leadership as *successful task-oriented leaders are instrumental in contributing to their groups' effectiveness by setting goals, allocating labor, and enforcing sanctions*. The Dubai government is characterised by a considerable focus on delivering change, illustrated by the Dubai Plan 2021 (The Executive Council, n.d.), with the ruler recently telling the UAE cabinet, "our goal is to expedite progress. Today, countries and governments are measured not by size but by speed" (Badam, 2016, para.6).

Relations-oriented leadership is defined as *concern for the welfare of subordinates and a desire to foster good interpersonal relations among organizational members* (Fernandez et al., 2010: 311). Relations-oriented leadership has been operationalised many times, and is typically constituted of supporting, developing, recognizing, consulting and empowering behaviours aimed at engagement and personal growth of subordinates (Yukl, 2002). Previous studies have identified a cultural preference in the Arab region for personal relationships, in-group orientation and consultative leadership drawing on both Islamic and tribal influences (Ali, 2011; Mathias, 2017). Relations-oriented leadership can thus be expected to be a crucial dimension of leadership-in-government in Dubai.

Change-orientated leadership. Fernandez et al. (2010) again draw on Yukl to define change-oriented leadership as *"primarily concerned with improving strategic decisions; adapting to change in the environment; increasing flexibility and innovation; making major changes in processes, products, or services; and gaining commitment to the changes"* (Yukl, 2002: 65). Fernandez et al.'s (2010) operationalisation of change-oriented leadership focuses on leaders'

encouragement of innovative and creative ideas, keeping the role distinct from delivery and thus task-oriented leadership. Change-oriented leadership is again appropriate for the Dubai context as innovation is another policy priority (Staff Reporter, 2015).

Diversity-orientated leadership is defined by Fernandez et al. (2010: 311) as *leadership by those in public settings who appreciate and promote diversity,* and taken to embrace all forms of demographic diversity. Fernandez et al. (2010) acknowledge evidence on diversity and better performance in the public sector is inconsistent but point to wider theories that suggest relationships to enhanced decision-making, stakeholder engagement and the competitive advantages of communities. Diversity-oriented leadership is pertinent to Dubai where expatriates comprise over 80% of the workforce and women's entry into public life remains relatively recent. While managing diversity is important in Dubai, there is however no associated ambition for equality between nationals and expatriate workers.

Methodology

This study examines the presence of these eight leadership-in-government roles in the Dubai government, the inter-relationships between them, and their effect on job satisfaction and self-perceived performance, and hence employee happiness.

Variables

Leadership-in-government roles (independent variables). This study draws on two scales to examine eight roles; four from Tummers and Knies (2016) and four from Fernandez et al (2010). Fernandez et al.'s (2010) fifth role of *integrity leadership* was omitted, because we judged it to overlap with the roles of accountability leadership and rule-following leadership. Some minor changes to survey questions were required for consistency and to improve understanding in the UAE context. The most significant change was to ask respondents about *my manager* in the singular, rather than ask about *managers* as a group. Second, for the

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political loyalty leadership role, the term *strategic* was used in place of *political*, a swap consistent with the language used at the top of government in Dubai, where the monarchy has adopted much of the language of business for the business of government, and where *politics* is understood more often as relating to foreign affairs, than domestic policy and public services.

Job satisfaction (dependent variable). We adopt the definition of job satisfaction as *"a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences"* (Locke (1976) quoted in Judge and Klinger (2008, p.394)). Kunin's (1955) single point scale, known as the GM (General Motors) Faces scale, is used to measure job satisfaction. As Bretz and Judge (1994) argue: "single item responses are considered appropriate when individuals are asked to make summary judgements about their own level of satisfaction or affect" (p.37) – see also Wanous et al. (1997). The GM Faces scale has a reported reliability of 0.66, which is lower than multi-question scales but is considered a respectable level of reliability (Saari and Judge, 2004); it also mitigates the risk of non-completion that increases with longer surveys.

Self-perceived performance (dependent/external variable). We adopt Vandenabeele's (2009) four-item measurement scale of perceived performance because it has been successfully applied to the proximate issue of public service motivation with a reported high level of fit (both goodness-of-fit, and the root mean square error of approximation). It was previously used to examine the relationship between public service motivation and self-perceived performance, and again is relatively short, reducing the risk of survey non-completion.

Control variables. The control variables used were gender, nationality (Emirati and non-Emirati), work level, and age for respondents; and gender, nationality and work level for

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respondents' managers (see Table 1 below). A five-point Likert scale was used throughout, except for the GM Faces scale for which we followed a six-point scale to force choice.

In all cases, the direction of the scales was consistent.

Data and statistical methods

A survey instrument was designed combining the leadership roles, job satisfaction and self-perceived performance scales, and control variables. The survey was piloted on a sample of 40 responses and internal reliability was tested using Cronbach's Alpha; in all cases $\alpha > 0.70$.

The survey was administered via the Dubai Government Advertorial, a central government email list for all Dubai government employees (65,000+). The target sample size was therefore calculated as 382 (Krejcie and Morgan, 1970). Qualtrics recorded 1,830 responses started, with 1,371 completed. Given the large dataset, it was possible to remove all cases with missing values. Respondents working for other Emirate governments or the Federal government were also removed, as insufficient cases were collected to facilitate comparative analysis. The final dataset was 911 cases (respondents), as summarised by demographic detail in the first column of Table 1; the second column reports the managers' demographic detail as reported by the respondents. (They were not asked to estimate managers' age or educational attainment). The spread of respondents by gender, age, nationality, level and educational attainment broadly reflects the profile of Dubai government employees published by Dubai Statistics Center (2013), taking into account access to email (see Table 1).

>> Table 1 here

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Findings and discussion

As previously observed, the aim of this study was to test for an expanded construct of integrated leadership-in-government, in the context of Dubai, and to examine the effect of this construct (or its constituent leadership-in-government roles) on job satisfaction and self-perceived performance as proxies for employee happiness.

Fuzzy C-means clustering of leadership-in-government roles

Clustering is a well-known technique for finding groups in data (see Fraley and Raftery, 1998). We use fuzzy c-means clustering (Bezdek, 1980; 2013) which, unlike crisp k-means clustering (Ketchen and Shook, 1996), and Ward's method (Janssens et al., 2003), recognises that each object included in an analysis may be associated with more than one cluster. Instead, degrees of cluster membership are indicated by membership coefficients to established clusters (see Zadeh, 1965), enabling potential association to more than one cluster. Fuzzy clustering is especially effective for discerning patterns amongst ambiguous data, such as in the investigation of integrated leadership-in-government levels, where individual managers can display varied combinations of stronger or weaker role integration.

With clustering undertaken on the evaluated independent variables (regression based factor scores) describing the different leadership-in-government roles, and being continuous in nature, gradations of association to the established clusters better reflects the continuous values (factor scores) it is based on. Hence, our fuzzy cluster analysis is performed with the understanding that a government manager may be associated, to varying degrees, with different clusters of leadership behaviour.

We investigated five clusters, without loss of generality. The selection of five clusters was based on their theoretical and empirical validity (Ketchen and Shook, 1996), however three, four, six and seven cluster models were also considered in early stages of data analysis. The

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clusters represent managers in the Dubai government, with groups distinguished by their performance of leadership-in-government roles, as identified by (employee-as-follower) respondents. The analysis resulted in differentiation between the clusters based on employees' perceptions of their managers' performances of all eight roles, which we term 'integrated leadership-in-government'. The box plot[1] elucidation of clusters presented in Figure 1 shows the mean scores, across the eight roles, for the perceived performance of integrated leadership-in-government for each cluster (see McDermott et al., 2013, and Andrews and Beynon, 2016, for previous use of this form of visualisation). The individual cluster means were found by aggregating the respondents' responses values based on their majority association to a cluster (for a respondent the cluster with highest associated membership coefficient is chosen as its majority association cluster).

Comparison of these cluster means enabled us to discern five different types of integrated leadership-in-government, described here as Low (C1), Low-Medium (C2), Medium (C3), Medium-High (C4) and High (C5) levels of integrated leadership-in-government (as labelled in Figure 1). The number of managers found in each cluster increased consistently from cluster 1 to 5. Numerical details of the clusters means and ANOVA/post hoc analyses of 'neighbour' clusters are provided in Table A1 in Annex 1.

>> Figure 1 here

The findings suggest there is strong evidence for integrated leadership-in-government across managers in Dubai government organisations and, in terms of the surveyed employees, a majority perceive integrated leadership-in-government to be strongly demonstrated by their

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[1] Within a box plot, the line inside the box is the median, the bottom and top of the box are the 1st and 3rd quartiles, and the bottom and top whiskers 1.5 the inter-quartile range (not extending past the range of the data), further points are potential outliers.

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managers (55% of the respondents are majority associated with C4 and C5). Moreover, all eight leadership-in-government roles are consistently clustered, differing only in terms of respondents' perceptions of how much their managers perform each role; i.e. managers are consistently perceived to contribute positively across all eight roles.

This construct of integrated leadership-in-government builds on earlier research including Fernandez (2005), Van Wart (2012), and Yukl (2002), which aimed to integrate elements of different leadership theories into new, and often more context-sensitive, frameworks. In particular, the cluster analysis brings together two sets of leadership roles from Fernandez et al. (2010) and Tummers and Knies (2016) that could be interpreted as applying to supervisory and executive level government managers respectively (Van Wart, private conversation, 2016). The findings here suggest no such distinction is perceived by employees across Dubai government organisations. Instead, the findings point towards a more general construct that distinguishes by 'how much' leadership-in-government is perceived to be shown.

Job Satisfaction and Self-Perceived Performance

Beyond the clustering of respondents across the eight leadership-in-government roles, we next investigated how those clusters compare across two external variables, *job satisfaction* and *self-perceived performance*. Consideration of such external variables contributes to the validation of the clustering process (see Ketchen and Shook, 1996); in this instance we are also using these variables to investigate the relationship between integrated leadership-in-government and employee happiness. To begin, we compared the cluster mean levels of employee job satisfaction and self-perceived performance across the different clusters (of managers), by carrying out post-hoc statistical tests to evaluate the presence of statistically significant differences in levels of job satisfaction and self-perceived performance between the clusters (see Table A2 in Annex 1 for details). Figure 2 provides a graphical depiction:

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The results indicate that both job satisfaction and self-perceived performance increase in line with the increase in employees' perception of their managers showing integrated leadership-in-government. Furthermore, there are statistically significant differences between the five clusters in this regard. In particular, job satisfaction varies significantly across the five clusters of integrated leadership-in-government, with those in C1 (low) reporting a mean of 2.85 on a Likert scale of 6, whereas those in cluster C5 (high) reported a mean of 5.29. In other words, integrated leadership-in-government positively affects job satisfaction and self-perceived performance: when employees perceive a higher level of integrated leadership-in-government by their manager, they also tend to report higher job satisfaction and self-perceived performance, and hence employee happiness. These findings are consistent with the findings of Van Wart (2012) and Yukl (2002).

Hierarchical regression analyses of the relationship between the five clusters and job satisfaction and self-perceived performance, taking into consideration other variables, are shown in Table 2. To facilitate the regression analyses, the five clusters were transformed into dummy variables using the membership coefficient values for the positive cluster values generated from the fuzzy *c*-means clustering, rather than a single positive value as would be the case for crisp-set clustering techniques (as developed by Andrews and Beynon (2016) building on Janssens et al., 2003). Five separate regression equations were calculated, with a different integrated leadership-in-government cluster used as a reference category for each model. We were then able to compare the level of perceived job satisfaction or self-perceived performance on four (dummy scored) clusters with the remaining fifth cluster serving as the reference category.

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The regression analysis shows that the model is statistically significant in predicting both job satisfaction (Adjusted R-square = .376) and self-perceived performance (Adjusted R-square = .217). These findings are notable given the array of other situational variables (such as intrinsic job characteristics, pay, promotion opportunities, co-workers) and dispositional variables (such as core self-evaluation, extraversion and conscientiousness) known also to have an effect (Saari and Judge, 2004). The prominence of leadership discourses in Dubai, and in particular the attribution of organisational and policy successes to individuals, supports a perception of the importance of individual leaders to outcomes, including employee happiness.

Three further patterns are also interesting. First, employees' self-perceived performance is considerably higher amongst non-Emirati employees (0.124) than Emiratis; and second, employees of Emirati managers report slightly lower job satisfaction than their counterparts reporting to non-Emirati managers (–0.061), though this finding is statistically less significant. These results are perhaps understandable in the demographic context of Dubai, as foreign workers (expatriates) are typically recruited to fill skills gaps in the government workforce, or to undertake administrative or menial tasks that many local workers prefer not to do. As a labour category, expatriates are also more transient than local employees. As a result, non-Emirati workers may well hold perceptions of their own performance that are more independent of local situational factors. At the same time, the small size of the Emirati population within the UAE, estimated at 15% of the total (Central Intelligence Agency, 2009), means that the Dubai government competes with other organisations to draw Emirati managers and leaders from a relatively smaller pool of talent. This may be another factor that helps explain the lower job satisfaction rating for Emirati managers. The third pattern is a small but significant increase in job satisfaction as employees get older (0.087). This pattern is consistent with other studies, which have found similar positive relationships between age

and job satisfaction, though moderated by other factors such as sector and longevity in post (Brush et al., 1987; Dobrow et al., 2015).

>> Table 2 here

Limitations and Recommendations for Future Research

This study has investigated managers' leadership-in-government in Dubai, as observed by employees, and offers insight into relationship between leadership-in-government and employee happiness.

Some limitations result from the cross-sectional method adopted. First, respondents were asked to report on the leadership roles of their managers. As the followers in these leadership dyads, respondents' perceptions are valid data, but naturally context will influence perceptions. The number of responses (911) should however mitigate most organisational and individual contextual factors, though all reported within the context of Dubai government, in late 2015. The scope of the Dubai government is also broad, and results should be interpreted accordingly. Second, we acknowledge the potential presence of common source bias as the data in this study are drawn from the same survey. It is possible that common-source bias may inflate, but not invalidate, the relationships found. Some researchers find that the impacts of common-source bias are minimal (e.g., Lance et al., 2010), but nonetheless caution is advised when interpreting these results. There is also possibility of both acquiescence and leniency biases in the respondent group (Meier and O'Toole, 2012; Podsakoff et al., 2003).

Three further avenues for investigation are suggested. First, we would encourage replication of this study. Second, research that investigates the relationship between integrated leadership-in-government and objective measures of both personal performance, and organisational performance, would help to test assumptions about the importance of leadership and happiness that dominate government discourse in the UAE. Research that examines the relationship to factors such as public service motivation, affective commitment and organisational citizenship behaviour in the UAE, and other jurisdictions, is also encouraged.

Conclusions

This study has offered a concept of integrated leadership-in-government, as a global and multifaceted construct, and demonstrated its importance to employee-as-follower job satisfaction and self-perceived performance – and hence employee happiness. It has shown that leadership in government is distinctive, and doing it well matters to your team. The study thus contributes to the established scholarly endeavour of building integrative models of leadership, building especially on the sub-stream of work on integrated leadership in government by Fernandez et al. (2010) and Tummers and Knies (2016). The study also highlights the relevance and fit of the concept of leadership-in-government beyond Western liberal democracies and specifically to Dubai for the first time.

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Megan Mathias is Senior Research Fellow at the Wales Centre for Public Policy, Cardiff University. Her research interests include leadership and agency in government, and public service reform.

Scott Fargher is Associate Professor at the Mohammed Bin Rashid School of Government, Dubai. His research focuses primarily on labour economics, macroeconomics, economic development and public policy.

Malcolm Beynon is Professor of Uncertain Reasoning and Business Analytics, Cardiff University. His research interests include the development and application of Dempster-Shafer theory and Fuzzy Set theory within organisational settings.

Annex 1: Data Tables

Table A1. Statistical results describing the differences between the factors used in the clustering (mean, standard deviation, ANOVA and post hoc analyses).

	ACC (0.035, 0.998)					RULE (0.037, 1.003)				
Mean order and ANOVA (post hocs)	**C1**	**C2**	**C3**	**C4**	**C5**	**C1**	**C2**	**C3**	**C4**	**C5**
	-1.845	-0.796	-0.021	0.377	1.058	-1.912	-0.557	0.129	0.275	0.953
	(0.679)	(0.557)	(0.436)	(0.318)	(0.341)	(1.005)	(0.615)	(0.524)	(0.508)	(0.144)
	(937.056*, 0.000)[a] **C1 $<^*$ C2 $<^*$ C3 $<^*$ C4 $<^*$ C5**					(526.169.056*, 0.000)[a] **C1 $<^*$ C2 $<^*$ C3 $<$ C4 $<^*$ C5**				
	LOY (0.039, 1.002)					**NETW** (-0.003, 0.994)				
Mean order and ANOVA (post hocs)	**C1**	**C2**	**C3**	**C4**	**C5**	**C1**	**C2**	**C3**	**C4**	**C5**
	-1.745	-0.605	-0.038	0.302	0.998	-1.698	-0.860	-0.206	0.327	1.066
	(0.783)	(0.600)	(0.542)	(0.449)	(0.619)	(0.622)	(0.594)	(0.508)	0.341)	(0.411)
	(456.315*, 0.000)[a] **C1 $<^*$ C2 $<^*$ C3 $<^*$ C4 $<^*$ C5**					(780.966*, 0.000)[a] **C1 $<^*$ C2 $<^*$ C3 $<^*$ C4 $<^*$ C5**				
	TASK (0.018, 0.990)					**RELT** (0.007, 0.998)				
Mean order and ANOVA (post hocs)	**C1**	**C2**	**C3**	**C4**	**C5**	**C1**	**C2**	**C3**	**C4**	**C5**
	-1.935	-0.797	-0.010	0.338	1.067	-1.749	-0.997	-0.046	0.389	1.044
	(0.546)	(0.515)	(0.406)	(0.307)	(0.203)	(0.543)	(0.575)	(0.459)	(0.332)	(0.244)
	(1317.227*, 0.000)[a] **C1 $<^*$ C2 $<^*$ C3 $<^*$ C4 $<^*$ C5**					(1088.817*, 0.000)[a] **C1 $<^*$ C2 $<^*$ C3 $<^*$ C4 $<^*$ C5**				
	DVST (0.006, 0.996)					**CHNG** (0.004, 0.999)				
Mean order and ANOVA (post hocs)	**C1**	**C2**	**C3**	**C4**	**C5**	**C1**	**C2**	**C3**	**C4**	**C5**
	-1.840	-0.860	-0.089	0.365	1.044	-1.822	-0.864	-0.232	0.405	1.073
	(0.563)	(0.636)	(0.456)	(0.302)	(0.252)	(0.444)	(0.556)	(0.464)	(0.344)	(0.249)
	(1.10.788*, 0.000)[a] **C1 $<^*$ C2 $<^*$ C3 $<^*$ C4 $<^*$ C5**					(1178.383*, 0.000)[a] **C1 $<^*$ C2 $<^*$ C3 $<^*$ C4 $<^*$ C5**				

Notes: Superscripts (h) denote post hoc significance levels based on h, Bonferroni; * p ≤ 0.05; + p ≤ 0.10; - p > 0.10 (two-tailed tests).
a The bracketed values (x, y) denote F-statistic and significance based on one-way ANOVA

Table A2. Statistical results describing the differences between the Job Satisfaction and Self-perceived Performance (mean, standard deviation, ANOVA and post hoc analyses).

		Job Satisfaction (4.42, 1.283)				
Mean order and ANOVA (post hocs)		C1	C2	C3	C4	C5
		2.85 (1.453)	3.66 (1.185)	4.40 (1.001)	4.72 (0.861)	5.29 (0.882)
		(124.174*, 0.000)[a] **C1 $<^*$ C2 $<^*$ C3 $<^+$ C4 $<^*$ C5**				
		Self-perceived Performance (4.278, 0.756)				
Mean order and ANOVA (post hocs)		C1	C2	C3	C4	C5
		3.611 (1.222)	4.011 (0.774)	4.289 (0.664)	4.324 (0.503)	4.699 (0.467)
		(49.848*, 0.000)[a] **C1 $<^*$ C2 $<^*$ C3 $<$ C4 $<^*$ C5**				

Notes: Superscripts (h) denote post hoc significance levels based on h, Bonferroni; * p ≤ 0.05; + p ≤ 0.10; - p > 0.10 (two-tailed tests).
a The bracketed values (x, y) denote F-statistic and significance based on one-way ANOVA

Table 1. Description of survey sample (N = 911)

Respondent	Frequency	%		*Manager*	Frequency	%
Gender				**Gender**		
Male	569	62.5		Male	683	75.0
Female	342	37.5		Female	228	25.0
Nationality				**Nationality**		
Emirati	452	49.6		Emirati	711	78.0
Non-Emirati	459	50.4		Non-Emirati	200	22.0
Work level				**Work level**		
Technical officer / administrator	451	49.5		Technical officer / administrator	34	3.7
Supervisor	210	23.1		Supervisor	93	10.2
Middle manager	191	21.0		Middle manager	390	42.8
Senior manager	59	6.5		Senior manager	394	43.2
Age						
15 - 19	1	0.1				
20 - 29	125	13.7				
30 - 39	379	41.6				
40 - 49	267	29.3				
50 - 59	125	13.7				
60+	14	1.5				
Educational achievement						
High school diploma	161	17.7				
Bachelor's degree	422	46.3				
Postgraduate diploma	63	6.9				
Master's degree	174	19.1				
Doctorate	27	3.0				
Other	64	7.0				

Figure 1. Box plot showing constituent means for five clusters of integrated leadership-in-government (Low (C1), Low-Medium (C2), Medium (C3), Medium-High (C4) and High (C5))
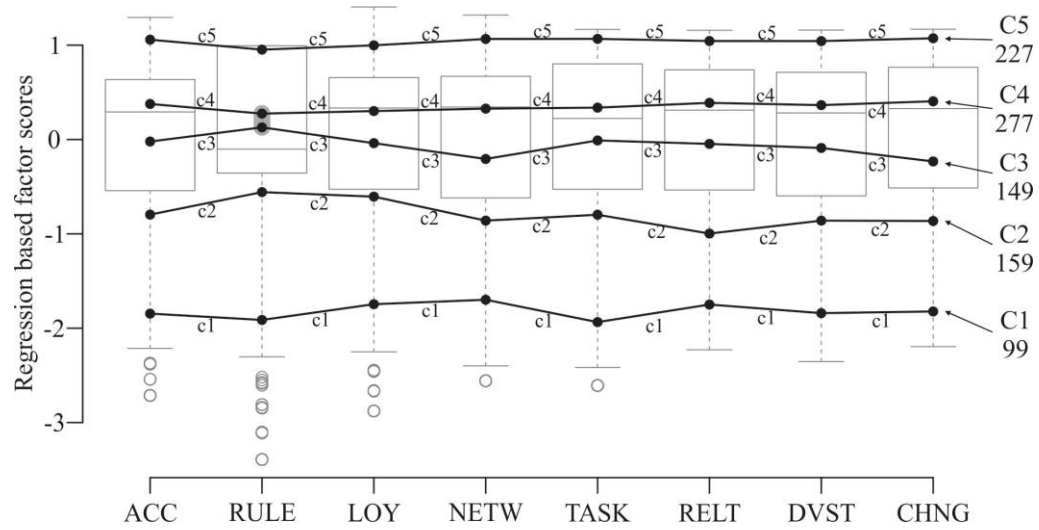

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Figure 2. Integrated leadership-in-government clusters, job satisfaction and self-perceived performance
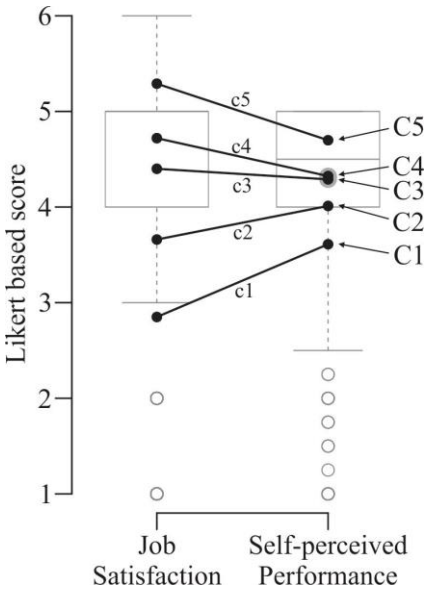
Table 2. Hierarchical regression results on job satisfaction and self-perceived performance across the reference clusters (of integrated leadership-in-government)

	Job Satisfaction					Self-perceived Performance				
	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
C1	-	-1.442***	-2.374***	-2.553***	-3.353***	-	-.394*	-.950***	-.732***	-1.383***
C2	1.442***	-	-.933***	-1.111***	-1.911***	.394*	-	-.556**	-.338**	-.988***
C3	2.374***	.933**	-	-.179	-.978***	.950***	.556**	-	.218	-.432**
C4	2.553***	1.111***	.179	-	-.800***	.732***	.338**	-.218	-	-.650***
C5	3.353***	1.911***	.978***	.800***	-	1.383***	.988***	.432**	.650***	-
Your Gender	-.034	-.034	-.034	-.034	-.034	.028	.028	.028	.028	.028
Your Nationality	.063	.063	.063	.063	.063	.124***	.124***	.124***	.124***	.124***
Your Level	.045	.045	.045	.045	.045	.037	.037	.037	.037	.037
What is your age group?	.087*	.087*	.087*	.087*	.087*	.008	.008	.008	.008	.008
Your Manager's Gender	-.027	-.027	-.027	-.027	-.027	-.006	-.006	-.006	-.006	-.006
Your Manager's Nationality	-.061+	-.061+	-.061*	-.061*	-.061*	.023	.023	.023	.023	.023
Your Manager's Level	-.019	-.019	-.019	-.019	-.019	.004	.004	.004	.004	.004
F		49.533***					23.433***			
R^2		.383					.227			
Adjusted R^2		.376					.217			

Unstandardized beta coefficients; +p < .10; *p < .05; **p < .01; ***p < .001. N=887 (less than 911 since not all respondents responded to these external variables)