International Journal of Innovation, Creativity and Change. www.ijicc.net
Volume 14, Issue 1, 2020

The Impact of Knowledge Management Systems on the Green Behaviour of Workers: An Exploratory Study of the Agricultural Offices in the South Area of Al-Riyadh

Fuad Mohammed Alhamdi[a], [a]Associate Professor, Department of Business Administration, College of Sciences and the Human Sciences in Alaflaj, Prince Sattam Bin Abdulaziz University, Saudi Arabia, Email: [a]f.alhamdi@psau.edu.sa

The purpose behind the current study is to know the role of the knowledge management systems that are represented by technology, information, and individuals, in the green behaviour of workers that is represented by sustainability of work, damage avoidance, preservation of resources, influencing others, and taking initiatives. The research has depended on the questionnaire as a main tool for collecting the necessary and required data for achieving its objectives. 56 questionnaires have been distributed to a sample of the higher and middle employees of administration to identify the availability of the knowledge management systems. 49 questionnaires were obtained as valid for analysis, in addition to that a group of statistical approaches were utilised like arithmetic, standard deviation, simple correlation coefficient, and the simple and multiple regression coefficient. The results of the study have shown that there is a positive correlation and impact relationship with a statistical significance between the systems of knowledge management and the green behaviour of the workers in the offices of agriculture in the southern area of Al- Riyadh.

Key words: Knowledge Management System, Green Behaviour of workers, Exploratory study

Introduction

Contemporary business organisations face many challenges that threaten their survival and success, like economic changes as well as the societal changes that are resulting from the challenges of globalisation, the open market, and technological and informatics development, which force these organisations to use rare systems of knowledge management that are able to deal with environmental disturbances that are unpredictable. Besides the maintenance of the environment from waste and pollution, the focus has shifted for the agricultural offices in the south of Al- Riyadh as they are part of the important staff in maintaining and sustaining the environment. Consequently these organisations tend to innovate new approaches and methods to manage the behaviour of workers targeting the maintenance of the environment, which obliges the organisation to take precautions and necessary steps to deal with possible failures. Hence, it is necessary that organisations face this problem and try to moderate the pressures of work that the worker undergoes which leads to tiredness, melancholy, and boredom to maintain the environment.

Research Methodology

Research Problem

The speeding environmental development and the huge leaps in the world of businesses have contributed to sustain and support the environmental through entertaining systems of knowledge management in their operations, which is considered as the basis for any organisation that tends to maintain the environment. Consequently, it has to use certain types of knowledge systems that are considered as the fundamental foundations that the organisation bases on them to stimulate the variety of its abilities to preserve the green behaviour of the workers. From this point the question arises: “What are the optimal methods of the systems of knowledge management through which the green behaviour of the workers can be supported and sustained?” The problem statement can be shown in the following three points:

1. What is the level of systems of knowledge management in the agricultural Offices in the south of Al-Riyadh area?
2. How can the green behaviour of the workers be treated in the agricultural offices in the south Al-Riyadh area?
3. What is the nature and the type of relationship between the systems of knowledge management and the green behaviour of workers in the agricultural offices in the south Al-Riyadh area?

The Significance of the Study

The significance of this study is made clear by the way in which it measures the relationships of correlation, and the impact between the variables of the study. In addition, it also addresses the following points:

1. The rare care for the environmental side on the account of the organisation.
2. The importance of knowledge management in administrating the environmental systems and maintaining them.
3. This study has contributed to introduce the calculated sample of the agricultural offices in the area of the south of Al-Riyadh city to the concept of knowledge management systems and the green behaviour of the workers.

The Objectives of the Study

The objectives that the research is trying to answer can be determined as follows:

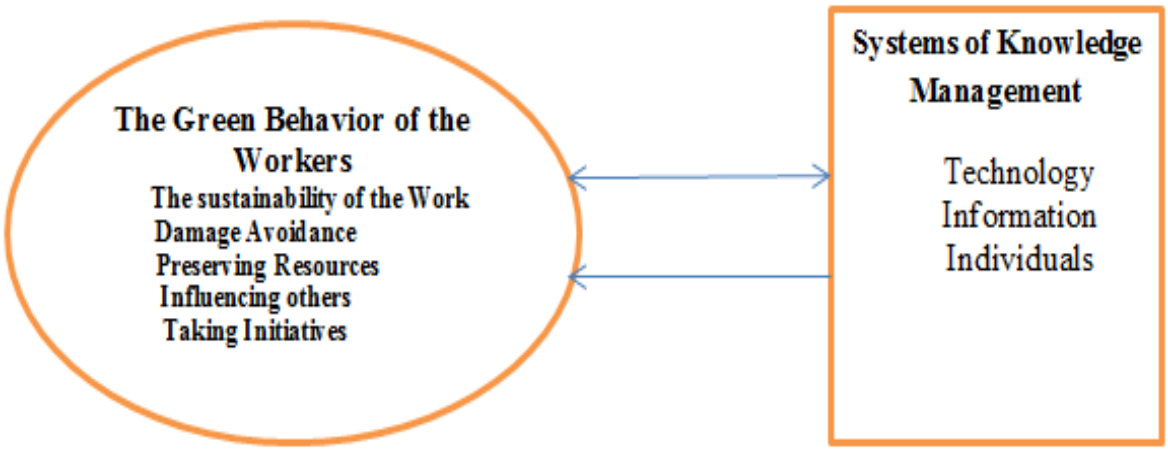
1. Determine the level of the systems of knowledge management that the agricultural offices in the south area of Al-Riyadh own.
2. Determine the extent to which agricultural offices in the south of Al-Riyadh contribute to the green behaviour of the workers.
3. Measuring the nature and the type of the relationship between the systems of knowledge management and the green behaviour of the workers.

Hypotheses of the Study

In light of what had been discussed in the research methodology and objectives, research hypotheses have been prepared. Figure 1 expresses the relationship between the variables of the study. This outline is represented by a group of relationships between correlation, and the impact between the variables of the study and as follows:

1. The Independent Variable: it represents the systems of knowledge management as represented by the systems of "technology, information and individuals."
2. The dependent Variable: the green behaviour of workers in the dimensions of the sustainability of the work, avoiding damage, and preserving resources, influencing others, and taking initiatives, and the measures of McConnaughy (2014:9).

Figure (1) Hypotheses of the Study



Hypotheses of the Study

Correlation Hypotheses

- The First Hypothesis: "There is a correlation relationship with statistical significance between the systems of knowledge management and the green behaviour of the workers." From this hypothesis many sub- hypotheses branch:
- There is a correlation relationship with statistical significance between the dimension of technology and the green behaviour of the workers and its dimensions (work sustainability, damage avoidance, preserving resources, influencing others, and taking initiatives).
- There is a correlation relationship with statistical significance between the dimension of information and the green behaviour of workers and its dimensions (work sustainability, damage avoidance, preserving resources, influencing others, and taking initiatives).
- There is a correlation relationship with statistical significance between the dimension of the individuals and the green behaviour of the workers and its dimensions (work sustainability, damage avoidance, preserving resources, influencing others, and taking initiatives).

Impact Hypotheses

The Second Main Hypothesis: "There is an impact relationship with statistical significance for the systems of knowledge management in the behaviour of the green workers." This hypothesis branches into several secondary hypotheses like:

- There is an impact relationship with statistical significance for the dimension of technology in the green behaviour of the workers and its dimensions (work sustainability, damage avoidance, preserving resources, influencing others, and taking initiatives).

- There is an impact relationship with statistical significance for the dimension of information in the green behaviour of the workers and its dimensions (work sustainability, damage avoidance, protecting resources, influencing others, and taking initiatives).
- There is an impact relationship with statistical significance for the dimension of the individuals in the green behaviour of the workers and its dimensions (work sustainability, damage avoidance, preserving resources, influencing others, and taking initiatives).

Methods of Data Collecting

The researcher has depended on the questionnaire as a tool for collecting the necessary data. Table 1 illustrates the variables, dimensions, and the items of each axis.

Table 1: The Axes of the questionnaire, its measurements and Symbolic Description
The Theoretical Framework

Axes	Variables	Dimensions	Items	Source
The First Axis	**Systems of Knowledge Management**	**Technology**	**3**	**Ahmed,2016**
		Information	**3**	
		Individuals	**3**	
Total				
The Second Axis	**The Green Behaviour of the Workers**	**Work Sustainability**	**9**	**McConnaughy,2014**
		Damage Avoidance	**7**	
		Preserving Resources	**10**	
		Influencing Others	**6**	
		Taking Initiatives	**8**	
			40	
Grand Total			**49**	

The Systems of Knowledge Management
The Concept of the Systems of Knowledge Management

Knowledge management refers to the administration of the assets of the organisation, creating the rare and added value that works on fulfilling the strategic requirements in order to support, sustain, evaluate and share knowledge. Nguyen (2018: 4), and Jan and Conteras (2016: 258) have indicated that organisations need to develop their systems of knowledge management,

consequently these systems refer to a category of required systems of information to manage organisational knowledge. Hence, the main aim of knowledge management is to support, create, transfer, and apply knowledge in the organisations. Razmerita et al. (2003: 213) have shown that the systems of knowledge management refer one of the important methods through which it is possible to access the best data, information, and stored knowledge in different forms and use them for the purpose of supporting the knowledge in the organisation.

The Benefits of Knowledge Management

The benefits of knowledge management are shown in the following points (Lam,2005:205; Nevo&Chan,2007: 590):

1. Improving productivity and organisational effectiveness, in addition to improving the competencies, communications and saving the costs.
2. Increasing the response, innovation, and keeping the employees.
3. Increasing the share market.
4. Developing the experiences of the employees for the competitive feature of the systems of knowledge management.
5. Maintaining knowledge of organisations in the face of employee depletion.
6. Facilitating employees' roles and responsibilities by helping them to acquire skills and knowledge outside their immediate position.
7. Providing intellectual guarantees to support a group of business development activities.
8. Act as a tool for rapid training for new or junior employees.
9. Ensuring a smooth transfer of knowledge between offices of management knowledge systems.

The Dimensions of the Systems of Knowledge Management

There are three main dimensions that contribute to measuring the systems of knowledge management as follows:

1. **The Technology**: the contribution of technology to introducing the data that is supplied in a formula which achieve benefit and the true value in the taken actions in the present and future (March & Smith,1995:521).
2. **The Information**: the management of information in the organisations is an essential thing from the point of view of employing the computer, programming, introducing healthcare services, and stimulating the operative competencies. Garman, (2006:82) and Legris et al. (2003:191) has concluded that the management of information in the organisations contributes to improve the quality of the introduced services.

3. **The Individuals**: they are the fundamental cornerstone in any organisation, and consequently the organisation has to develop their special skills by enlisting them in training classes on a regular basis(Ahmed,2016:352).

The Green Behaviour of the Workers

The Concept of the Green Behaviour of the Workers

The environment is considered as the main component for the existence of businesses organisations in the twenty-first century, whereas the subject of the green behaviour of workers is considered as the subject of the hour as it is being specified from the rational behaviour (Ones & Dilchert, 2012:85). Hence, the green behaviour of workers is any behaviour that is applicable for measuring and contributes to reducing environmental effects in the context of organisational work (Norton et al.,2015:103-105). In addition to that Norton has classified the green behaviour of the workers into five important categories (Starik & Marcus,2000:539). In order to maintain environmental sustainability, these categories are (1) working on sustainability, (2) preserving of resources, (3) Influencing the Others, (4) Taking Initiatives, (5) avoidance of damages and barriers that stand against achieving the desired goal.

Green employee behaviour is a set of procedures and behaviours that can be developed in which employees contribute to environmental sustainability or decreasing it (Wiernik et al., 2016:2). These behaviours can be implemented as a condition of employment and as part of optional organisational citizenship behaviours. Sometimes, these behaviours can be counterproductive because they actually detract from the environmental performance of the organisation (Ones&Dilchert,2012:87), instead of strengthening it. By considering them as scalable procedures, it can differ from the extent of its frequency or the performance of the employees with proficiency, and this graduation allows a quantitative contribution for each employee. In order to stimulate the employees for green practices inside the organisation, we have to stimulate them in the first place (Mayangsari &Nawangsari, 2019:219). The green behaviour employees is an individual behaviour that is applicable for measuring and contributes to the environmental effects or reduces them in the context of the work. Mukapit et al. (2018:44) have declared that the green behaviour of the employees is a main resource in the green strategic planning of the organisation. McConnaughy (2014:1) and de Araujo (2014:9) defined the green behaviour of the employees as a group of procedures and behaviours in which the employees are involved, and is connected with environmental sustainability and contributes to it or reduce its sustainability. These behaviours can be executed as a condition for work or as optional behaviours for regular citizenship. Sometimes it may backfire when it detracts from the reality of the environmental performance of the organisation, instead of improving it. As it is described as scalable procedures, it may differ from the extent of frequency in the performance of the employees and their sufficiency. It also works on increasing the ability to expand on the

organisational level through the contribution of every employee. In the same way Bioral et al. (2015:6) stress that green behaviours are only procedures that are able to expand and behaviours that the employees have in common. It is associated with the ability of environmental sustainability or contributing to it. Dumont et al. (2017:616) sees that the behaviour of the green employee is supporter for the society by nature. From a scientific perspective it should include routine green behaviour in the workplace.

The Practices of the Green Behaviour Employees

There are groups of practices that care for the green behaviour of the employees that Tariq has identified (Dutta,2012:143). In order to cast light on these practices, there is the following:

1. Developing the talented employees.
2. Designing the jobs in order to share with the employees and develop them.
3. Training the practices of health in line with echo-friendly factors.
4. The control and evaluation on the basis of the practices of the green behaviour employees.
5. Specifying rewards that are associated with the environmental performance (Tariq et al., 2016:242).

The Types of Green Behaviour Employees

There are two types of the green behaviour in employees, and they are as follows (Norton et al.,2015:105; Yigit,2017:67):

1. The Compulsory and Obligatory green behaviour of Employees as a green behaviour is executed in the context of the required tasks of the employees. This behaviour includes regularity policies, and changing the styles of work. This includes choosing the responsible substitutes, and initiating products and sustainability operations. This type is similar to the concept of tasks performance as it refers to required behaviour on the account of the employees by the work owner and it directly and indirectly contributes to fundamental workers.
2. The Voluntary Green work of the employees: this kind refers to the personal initiatives that exceed organisational expectations. This also identifying the priorities of environmental interest, and initiate programs and environmental policies, pressure and actively encourage others. The concept of the voluntary green behaviour of the employees firmly chimes with concepts of the contextual performance and organisational citizenship behaviour, which refers to the behaviours that support psychological, social, and organisational sites in which the task performance occurs.

The Theories of the Green Behaviour of the Employees

There are four theories as follows (Norton et al.,2015: 106):

The Attitudinal Theory

This theory of attitudes is based on the idea that individuals are more likely to practice activities that match with attitudes that are internal and favourably-oriented. In this case, the natural environment for example is considered as the central doctrine for planned behaviour theory as a positive relationship between attitudes and behaviour. In another theory, the attitudes are necessary but not enough. It requires that the employees have the ability to control behaviour and they have to be aware of the social criteria in order to perform behaviour. The theory of planned behaviour is one of the pioneer frameworks to explain environmental behaviour in a special context, which may work as a mediator for the relationships between the green behaviour of the employees and the factors in the other levels. The affirmation of the environmental attitudes works on moderating the impact of the positive effect on the green behaviour of the employee, whereas there will be a stronger relationship between the positive impact and the green behavior of the employees as opposed to the individuals who have more negative environmental attitudes.

Normative Theories

The normative theories focus on examining behaviour as it is socially acceptable. For example, the theory of normative behaviour suggests the rules that guide behaviour by stressing the social consequences to participate or not in certain activities. Research on sustainability in this theory is usually focused on green behaviour in the special sphere.

Exchange Theories

The theories of exchange focus on the role of interactions, especially reciprocity between individuals and other entities, like leaders or groups. This perspective suggests that behaviour is pushed by the commitments that are rising from mutual relationships, like the relationships between the leaders and the followers. These commitments stem in its role from the “rules of exchange” which includes reciprocity (recovery), the negotiated results (Barter), altruism, and the goals of the group. Consequently, the application of the social exchange theory recently is done to explain the nature of environmental citizenship behaviour. In addition to that this perspective sees reciprocity between the employees and the organisation to mediate the impact of the environmental attitudes on the behaviour of environmental citisenship.

Motivative Theories

Motivate theories revolve around the factors that motivate the decision to be involved in certain behaviour in addition to the density and perseverance of the explained effort. For instance, in the theory of self- determination, it supposes that behaviour is a result for a group of observed and independent motivations. According to Desi and Rayan, the employees are motivated towards involvement by the green behaviour of other employees, their personal satisfaction by doing that (self-motivation), and their belief that the company is going to reward them (the controlling motivation). It uses the theory of self-determination to explain the green behaviour of employees that includes self-motivations like values and the attitudes, in addition to observing motivations like the systems of environmental management and rewards.

The Dimensions of the Green Behaviour of the Employees

1. **The Work Sustainability**: it is the processes that help to sustain the work and the products with a maximum level. This dimension refers to the following behaviours (Ones & Dilchert, 2012:87; McConnaughy, 2014:70):

- Selecting the responsible alternatives: it is the behaviour in which the employee chooses the option of work or the process that is more suitable for the environment
- Changing how you do work: it is the behaviour through which the operations of the work are changed to become more sustainable.
- Creating the Products and the Sustainable Processes: it is the behaviour through which new products and processes are made to be more suitable for the environment.
- Adopting the Innovation for the sake of sustainability: it is the behavior through which it is possible to depend on the new technology which is more sustainable for the work.

2. **Avoidance of Damage**: are the behaviors that cause damages to the environment. This dimension refers to the following behaviors:
- **Pollution/ to prevent Pollution**: are the behaviors that cause or prevent pollution.
- **Monitoring the effect of Pollution**: are the behaviors through which it is possible to monitor the activities of the work to evaluate and understand how it affects the environment
- **Sustaining the Ecological Systems**: the behaviours that help to protect and prepare the ecological system from the effects of the industry and businesses.

3. **Maintaining Resources**: are the behaviours that aim to help and protect resources and reduce damage. This dimension refers to the following behaviours:
- **Reducing the usage**: are the behaviours that prevent the unnecessary use of new resources
- **Reuse**: are the behaviours in which the same materials are used for the same purpose.
- **Recycle**: are the behaviours in which the same material is used for new purposes.

- **Recycling:** are the behaviours through which the recycling of material is done (that end up in the Centre of recycling (McConnaughy,2014:70).

4. Influencing the others: are the social behaviours used to influence others in order to integrate environmental behaviours. And this dimension refers to the following behaviours.

- **Encouraging and supporting the others:** are the behaviours that reinforce and encourage green behaviours in another employee.
- **Training and Education for the purpose of Suitability**: are the behaviours that help others to build their knowledge about the environment.

5.Taking Initiatives: are the behaviours that revolve around going beyond the area that is specified by the organisation and which encourages making change. And this dimension refers to the following behaviours:

- **Putting environmental interests first**: the behaviours that help the environment to assume some of the personal costs of the individual (Ones&Dilchert,2012:87).
- **Starting the programs and Policies**: paying for programs and policies that are new in the work which may benefit the environment.
- **The Pressure and the Activity**: are the behaviours that revolve around the fight for environmental reasons.

Table 2: The Dimensions of the Green behaviour of employees

Serial No.	The Sustainable work	Avoidance the Damage	Protecting the Resources	Influencing the others	Taking initiatives
1	*Choosing the responsible alternatives	*Pollution/Prevent Pollution	Reducing the inefficient use of the material	*Supporting and Encouraging the Others	Putting environmental interests first
2	Changing the methods of Work	*Monitoring the environmental effect	*recycle the material	*Education and Training for the purpose of sustainability	*Starting to use high level programs and polices
3	*creating products and processes that are sustainable	Reinforcing the environmental Systems	*Reorientation		*Pressures and Activity
4	Adopting the Innovation for the Purpose of suitability		*Recycling		

Source: McConnaughy, J.C. (2014). Development of an Employee Green Behavior Descriptive Norms Scale p90.

Encoding the Axes and Items of the Study

Before entering the involved variables in the analysis, a group of codes should be used. Through these codes, the fundamental variables are to be inferred. Table 3 illustrates the description of the axes and the dimensions of the questionnaire.

Table 3: Encoding and Describing the Axes of the Questionnaire

The Axes	The Variables	The Dimensions	The Items	The Code
The first Axis	Knowledge Management Systems (KMS)	The Technology	3	KTE
		The Information	3	KIN
		The Individuals	3	KID
The Second Axis	Green Worker Behaviour (GWB)	Work Sustainability	9	GBS
		Avoidance of Damage	7	GAD
		Preserving the Resources	10	GPR
		Influencing the others	6	GIO
		Taking Initiatives	8	GTI

Analysis of the Normal Distribution

The approval of the results of the study or refusal depends on the normal distribution of the data, whereas the data is to follow the normal distribution. Hence, it is possible to accept the results that the research reached. Meanwhile, if the results don't follow the normal distribution that is the moral value of the data is less than (0.05), it is possible to resort to non-parametric tests, yet this will lead to weak results. The most famous tests of normal distribution of the parameter data are the tests by Kolmogorov-Smirnov and Shapiro-Wilk. Table 4 illustrates the tests of Normal Distribution.

Table 4: The tests of the Normal Distribution of the Variables of the Study

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Technology	.167	49	P>0.05	.931	49	P>0.05
Information	.232	49	P>0.05	.839	49	P>0.05
Individuals	.261	49	P>0.05	.836	49	P>0.05
Knowledge Management Systems	.184	49	P>0.05	.895	49	P>0.05
Work Sustainability	.129	49	P>0.05	.943	49	P>0.05
Avoidance of Damage	.199	49	P>0.05	.881	49	P>0.05
Preserving Resources	.220	49	P>0.05	.734	49	P>0.05
Influencing Others	.160	49	P>0.05	.922	49	P>0.05
Taking Initiatives	.097	49	P>0.05	.976	49	P>0.05
Green Employees Behaviour	.165	49	P>0.05	.883	49	P>0.05

The results appearing in the above table show that the data follows the normal distribution, that is to say that the results that the study reached can be generalised to the society. In addition to that, the parameter tests can be followed in order to extract the results,. The data also has a moral value higher than 0.05.

Testing the Stability and Reliability of the Questionnaire

These items show the reliability and stability of the questionnaire used and it can be distributed on the community of the research sample. Consequently the famous test of Stability coefficients is the test of Alpha Cronbach, and should be with a moral value of the study more than 0.76. Table 5 illustrates the test of Alpha Cronbach for the variables of the study.

Table 5: Illustrates the Alpha Cronbach Coefficient for the Variables of the Study

Axes	**The Variables**	**Cronbach for the variable as a whole**	**Dimensions**	**Items**	**Cronbach for each dimension**	**Cronbach for the study as a whole**
1st Axis	Knowledge Management Systems	.929	The Technology	3	.939	0.943
			Information	3	.935	
			Individuals	3	.940	
2nd Axis	Green Behaviour of Employees	.932	Work Sustainability	9	.935	
			Damage Avoidance	7	.939	
			Preserving the Resources	10	.934	
			Influencing others	7	.944	
			Taking Initiatives	8	.946	

These results as shown in the above show relative stability. Hence, the tool of questionnaire is valid to be distributed on the sample of the society of the research.

The Statistical Description of the Variables of the Study

This item handles the arithmetic means and the standard deviations for used dimensions in the study.

The Variable of the Knowledge Management System

The results of the below table show that the general arithmetic mean for the knowledge management systems that reached 4 with a standard deviation of 0.623. Perhaps the dimension that has contributed to that is the one that is related to the individuals with an arithmetic mean of 4.05 and standard deviation of 0.621. Meanwhile the dimension that is related to the information came in the second rank with an arithmetic mean equal to 4.03 and standard deviation of 0.816. Meanwhile, the dimension that is related to technology is in the last rank with arithmetic at 3.91 with a standard deviation of 0.742.

Based on the above it can be said that the technologies that are used in the agricultural offices in the area of the south of Al-Riyadh has to focus on introducing the technologies that are used for the purpose of collecting the biggest amount of information that is accurate about the required tasks and the future projects.

Table 6: The Statistical Description of the items and the Dimensions of the Knowledge Management System

S.No.	Arithmetic	Standard Deviation	Order of Significance	Serial	Arithmetic Mean	Standard Deviation	Order of Significance
KTE1	3.86	1.08	2	KID1	3.98	0.75	2
KTE2	3.8	0.935	3	KID2	0.79	0.79	1
KTW3	4.08	0.731	1	KID3	3.98	0.777	3
Technology	3.91	0742	3rd	Individuals	4.05	0.621	1st
KIN1	4.02	1.031	2	KMS	4	0.623	****
KIN2	4.06	0.988	1				
KIN3	4	0.817	3				
The Information	4.03	0.816	2nd				

The Variable of the Green Behaviour of the Employees

The results that appeared in the table below refer to the general average of the Arithmetic means for the variable of the green employee behaviour, which is 3.98 with a standard deviation of 0.492. Perhaps that dimension contributes to that is the dimension of taking initiates with an arithmetic mean of 4.11 with a standard deviation equal to 0.412. Meanwhile the dimension of sustainability of work is in the second rank with an arithmetic mean of 4.02 with a standard

deviation of 0.659. The dimension of protecting the resources is in the last rank with an arithmetic mean of 3.86 and standard deviation of 0.688.

Based on the aforesaid argument, it can be said that the agricultural offices in the area of the south of Al-Riyadh has to cope with the development that is targeting the protection of the environment through taking initiatives that aim to sustain the environment and maintain it.

Table 7: The Statistical Description of the items and the Dimensions of the Green Behaviour of the Employees

Serial No.	Arithmetic	Standard Deviation	Order of Significance	Serial No.	Arithmetic	Standard Deviation	Order of Significance
GBS1	4.18	0.755	2	**GPR7**	3.98	1.051	3
GBS2	4.29	0.707	1	**GPR8**	3.98	0.901	2
GBS3	4.06	1.049	5	**GPR9**	3.82	1.074	7
GBS4	4.08	0.975	4	**GPR10**	3.88	1.033	5
GBS5	4.08	1.017	3	**Preserving Resources**	**3.86**	**0.688**	**5th**
GBS6	4	0.677	6	**GIO1**	3.98	0.924	5
GBS7	3.8	0.912	8	**GIO2**	3.73	0.974	6
GBS8	3.73	1.169	9	**GIO3**	4.06	0.719	2
GBS9	3.94	0.922	7	**GIO4**	4.02	1.031	4
Work Sustainability	**4.02**	**0.659**	**2nd**	**GIO5**	4.08	1.038	1
GAD1	4.14	0.817	1	**GIO6**	4.04	0.763	3
GAD2	4.02	0.595	3	**Influencing on Others**	**3.99**	**0.699**	**3rd**
GAD3	3.92	0.786	4	**GTI1**	4.06	0.659	5
GAD4	4.08	0.812	2	**GTI2**	4.29	0.707	2
GAD5	3.88	1.013	6	**GTI3**	4	0.707	7
GAD6	3.88	0.807	5	**GTI4**	4.12	0.726	3
GAD7	3.47	1.276	7	**GTI5**	4.31	0.713	1
Avoidance of Damage	**3.91**	**0.607**	**4th**	**GTI6**	4	0.817	8
GPR1	3.59	0.864	10	**GTI7**	4.02	0.901	6
GPR2	3.78	0.941	8	**GTI8**	4.08	0.812	4
GPR3	3.84	0.8	6	**Taking Initiatives**	**4.11**	**0.412**	**1st**
GPR4	4.08	1.096	1	**Green Behaviour of the Employees**	**3.98**	**0.492**	
GPR5	3.92	1.205	4				
GPR6	3.76	1.128	9				

The Relationships of Correlation and Impact among the Variables of the Study Measuring the Correlation Relationship

This item cares for measuring the relationship of correlation among the variables of the study, by testing the main hypotheses of the study and their branch hypotheses by using the statistical approaches through the SPSS.V.24 program. Table 8 illustrates the link matrix.

Table 8: Illustrates the link matrix

GWB	Taking Initiatives	Influencing the Others	Preserving the Resources	Avoidance of Damage	Work Sustainability	KMS	The Individuals	Information	Technology	
Technology	1	**685.	**473.	**853.	**623.	*562.*	*539.*	**650.	**470.	72.**0
Information	.685**	1	**618.	**914.	**682.	*619.*	*761.*	**618.	**407.	79.**2
Individuals	.473**	.618**	1	**790.	**644.	*520.*	*821.*	271.	**505.	69.**3
KMS	.853**	.914**	.790**	1	**759.	*666.*	*819.*	**618.	**532.	86.**2
Work Sustainability	.623**	.682**	.644**	.759**	1	*710.*	*787.*	**496.	**413.	87.**4
Avoidance of Damage	.562**	.619**	.520**	.666**	.710**	1	*776.*	**447.	**386.	84.**6
Preserving Resources	.539**	.761**	.821**	.819**	.787**	.776**	1	**395.	**416.	86.**4
Influencing others	.650**	.618**	.271	.618**	.496**	.447**	.395**	1	**541.	72.**9
Taking Initiatives	.470**	.407**	.505**	.532**	.413**	.386**	.416**	.541**	1	64.**4
GWB	.720**	.792**	.693**	.862**	.874**	.846**	.864**	.729**	.644**	1
**. Correlation is significant at the 0.01 level (2-tailed).							Sig. (2-tailed)=0.000		N=49	

It is noted from the above results that there is a correlation relationship between the dimensions and the variables of the study as follows:

1. There is a significant statistical relationship between the systems of knowledge management and the green behaviour of the employees with a relationship force of 0.862, and with a force of correlation between the systems of knowledge management and the dimensions of the green behaviour of the employees, which ranges between 0.532 for the dimension of taking initiatives to 0.819 for the dimension of protecting the resources.
2. There is a significant statistical relationship between the dimension of the technology and the green behaviour of the employees with a relationship force of 0.720, and a force of correlation between the dimension of the technology and the dimensions of green behaviour of the employees which ranges between 0.470 for the dimension of taking initiatives to 0.819 for the dimension of influencing the others.

3. There is a significant statistical relationship between the dimension of the information and the green behaviour of the employees with a relationship force of 0.792, with a force of correlation between the dimension of the information and the dimensions of green behaviour of the employees which ranges between 0.407 for the dimension of taking initiatives to 0.761 for the dimension of protecting resources.
4. There is a significant statistical relationship between the dimension of the individuals and the green behaviour of the employees with a relationship force of 0.693, with a force of correlation between the dimension of the individuals and the dimensions of green behaviour of the employees, which ranges between 0.271 for the dimension of influencing others to 0.821 for the dimension of protecting resources.

The Impact Relationship Among the variables of the study

The aim from this item is to measure the impact of the systems of knowledge management and its dimensions on the green behaviour of the employees. Figure 2 illustrates that.

Figure 2. The Impact of Knowledge Management Systems and its Dimensions on the Green behaviour of the Employees

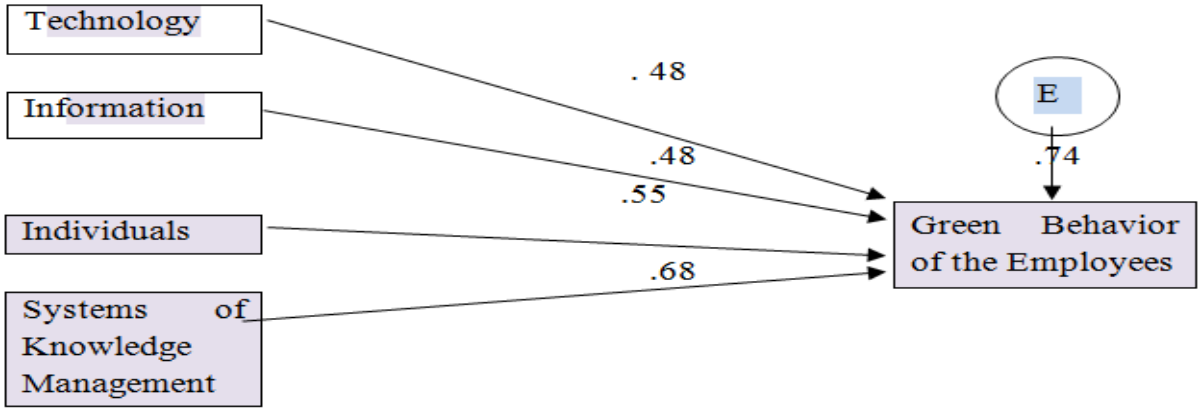


Table 9: Standard saturation for the relationship of impact of the knowledge management systems and its dimensions in the green behaviour of the employees.

Direction			Estimate	S.E.	C.R.	R^2	P
GWB	<---	KTE	0.478	0.067	7.134	0.744	***
GWB	<---	KIN	0.477	0.054	8.833		***
GWB	<---	KID	0.548	0.083	6.602		***
GWB	<---	KMS	0.680	0.058	11.72		***

We observe from the results that are contained in the above table and the above figure the following points:

There is an impact for the systems of knowledge management in the green behaviour of the employees. Improving the systems of knowledge management by one standard weight leads to improving the care of the green behaviour of the employees by an amount of 0.680, with standard error equal to 0.058 with a critical value reaching 11.72.

1. There is an impact for the dimension of the technology in the green behaviour of the employees, whereas the increase in the dimension of the technology by one standard weight leads to improving the care of the green behaviour of the employees with an amount of 0.478, with standard error equal to 0.067 with a critical value reaching 7.134.
2. There is an impact for the dimension of information in the green behaviour of the employees, whereas the increase in the dimension of the information by one standard weight leads to improving the care of the green behaviour of the employees with an amount of 0.477, with standard error equal to 0.054, and a critical value reaching 8.833.
3. There is an impact for the dimension of individuals in the green behaviour of the employees. Increasing the dimension of the individuals by one standard weight increases the care of the green behaviour of the employees with an amount of 0.548, a standard error equal to 0.083, and a critical value reaching 6.602.
4. The systems of knowledge management and its dimension contribute to interpreting 0.744 of the cases and phenomena that stand against the development of the green behaviour of the employees, meanwhile the remaining value represents the cases beyond the limits of the study.

Conclusion and Recommendations

The Conclusions

1. There is a statistically significant correlation between knowledge management systems and the behaviour of green workers and the dimensions of each of them, which means that agricultural offices in the south of Riyadh must stress the need to maintain effective performance.
2. There is a clear interest on the part of the agriculture offices in the south of Riyadh on developing relations with its employees and various stakeholders in order to achieve its goals and the goals of its workers.
3. There is a clear emphasis by the agricultural offices in the south of Riyadh on providing opportunities to develop the skills of individuals by providing them with training, educational and development programs.
4. Agriculture offices in the south of Al- Riyadh are keen to provide specialists in the field of information technology, especially in the field of preserving the regulatory environment in order to avoid the common mistakes made by similar organisations.

5. Agriculture offices in the south of Al-Riyadh are keen on developing the necessary goals and measures in order to maintain their level.
6. Agriculture offices in the south of Al- Riyadh pay great attention to the behaviour of green workers in order to protect the environment from pollution, as well as ensuring the use of environmental sustainability in their work.

Recommendations

1. The necessity for agriculture offices in the south of Riyadh is to enhance the ability of their employees by participating in training sessions, conferences and discussions and thereby maintain their green behaviour.
2. The need for agricultural offices in the south of Riyadh emphasises possessing the appropriate talents and expertise in order to support its performance in preserving the environment.
3. The need for agriculture offices in the south of Riyadh to support and enhance knowledge programs in order to achieve a balance between knowledge management systems and the behaviour of green workers.
4. The need for agricultural offices in the south of Riyadh to provide a database in order to facilitate internal operations and facilitate the process of completing tasks with ease.
5. It is necessary for agricultural offices in the south of Riyadh to strive to develop performance evaluation indicators for various businesses and their units, in order to assess their performance regarding their concern for the environment.
6. The need for agricultural offices in the south of Riyadh to focus on providing the necessary means for the welfare of its employees and developing various services for them that are in line with their needs in order to preserve them.

REFERENCES

Ahmed, Farid Hussein, (2016) "Social capital and its impact on knowledge management systems: An exploratory study of the views of a sample of employees at Al-Nahrain University. Al-Dananir Magazine, (9), 352.

Boiral, O., Paillé, P., & Raineri, N. (2015). The nature of employees' pro-environmental behaviors. The psychology of green organizations. 1-19.

Dumont, J., Shen, J., & Deng, X. (2017). Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. Human Resource Management, 56(4), 613-627.

Dutta, S., (2012). Greening people: A strategic dimension. ZENITH Intern. J. Bus. Econ. Manag. Res. 2(2), 143–148.

Garman, A. (2006)."Business knowledge and skills. Journal of Healthcare Management, 81-85.

Jan, A. U., & Contreras, V. (2016). Success model for knowledge management systems used by doctoral researchers. Computers in Human Behavior, 59, 258-264.

Lam, W. (2005). Successful knowledge management requires a knowledge culture: a case study. Knowledge Management Research & Practice, 3(4), 206-217.

Legris.P, Ingham.J,Collerette.P,(2003)."Why do people use information technology? A critical review of the technology acceptance model. Journal Information & Management, 191–204.

March.S&Smith.G,(1995). Design and natural science research on information technology . Decision Support Systems 15, 251-266.

Mayangsari, R. E., & Nawangsari, L. C. (2019). The effect of green recruitment, green training on environmental performance in pt wira cipta perkasa using employee green behavior as mediation variable. Dinasti International Journal of Management Science, 1(2), 217-231.

McConnaughy, J. C. (2014). Development of an employee green behavior descriptive norms scale. California State University - San Bernardino, Electronic Theses, Projects, and Dissertations, 1- 105.

Mukapit, M., Aziz, S. F. A., Selamat, M. N., & Tambi, N. (2018). Ciri-ciri Pekerja Bertingkah laku Hijau: Satu Tinjauan Awal (Characteristics of Employee Green Behaviour: Preliminary Study). Jurnal Psikologi Malaysia, 32(4), 44-54.

Nevo, D., & Chan, Y. E. (2007). A Delphi study of knowledge management systems: Scope and requirements. Information & Management, 44(6), 583-597 .

Nguyen.N, (2018). Data mining in knowledge management processes:Developing anImplementing framework. Master thesis, 30 hp (SPM 2018.09). Umeå University, Faculty of Social Sciences: Department of informatics.

Norton, T. A., Parker, S. L., Zacher, H., & Ashkanasy, N. M. (2015). Employee green behavior: A theoretical framework, multilevel review, and future research agenda. Organization & Environment, 28(1), 103-125 .

Ones, D. S., & Dilchert, S. (2012). Employee green behaviors. In S. E. Jackson, D. S. Ones, & S. Dilchert (Eds.), Managing human resources for environmental sustainability San Francisco, CA: Jossey-Bass, p85-116.

Razmerita, L., Angehrn, A., & Maedche, A. (2003). June. Ontology-based user modeling for knowledge management systems. In International Conference on User Modeling Springer, Berlin, Heidelberg, 213-217.

Starik, M., & Marcus, A. A. (2000). Introduction to the special research forum on the management of organizations in the natural environment: A field emerging from multiple paths, with many challenges ahead. Academy of Management Journal, 43, 539-546.

Tariq, S., Jan, F. A., & Ahmad, M. S. (2016). Green employee empowerment: a systematic literature review on state-of-art in green human resource management. Quality & Quantity, 50(1), 237-269.

Wiernik, B. M., Dilchert, S., & Ones, D. S. (2016). Age and employee green behaviors: A meta-analysis. Frontiers in Psychology, 7, 1-15.