Using the Excel pivot table (EPT) function as a research decision support system (DSS): a research note

JOSEPH KIM-KEUNG HO
Independent Trainer
Hong Kong, China

Abstract:

The Excel pivot table function (EPT) used for multidimensional data analysis (MDA) should be considered as a research decision support system (DSS) so that its value as a research tool can be better realized. This paper provides some theoretical clarification on this supportive view. In addition, it provides an illustration on how this is done with a EPT application on a data file on a 2015 questionnaire survey conducted by the writer with regard to the topic of perceptions on homelessness in Hong Kong. The aim is to encourage the academic community in the Research Methods field to study it as a useful research method topic.

Key words: Excel pivot table (EPT), Homelessness survey data, Multidimensional Data Analysis (MDA), Research Decision Support Systems (DSS).

INTRODUCTION

The Excel pivot table (EPT) function is a handy and widely known data analysis and presentation tool, e.g., for studying data in applied business research projects of MBA student. It is also widely available to personal computer users using MS Office. Beyond that, this writer (2018) proposed to treat the EPT application for multidimensional data analysis (EPT for

MDA) as a research decision support system (DSS) (Ho, 2018). In this way, he encourages researchers to heed DSS, especially Executive Information Systems (EIS), practice guidelines to enhance research methods practices, especially on quantitative research methods[1]. This article offers a more detailed elaboration on the notion of EPT for MDA as a research DSS as initially espoused in Ho (2018). Additionally, it makes use of this research DSS to study the questionnaire survey data on homelessness perceptions in Hong Kong to illustrate this DSS notion.

The Excel pivot table (EPT) function as a research decision support system (DSS)

The Excel pivot table (EPT) function utilizes a structured data file and treats each field of the file as a dimension. As such, the structured data file becomes a data cube with a number of dimensions. Consequently, the EPT function performs as a Multidimensional Data Analysis (MDA)-supported Decision Support System (DSS). When this DSS is employed by a researcher to study research data, e.g., questionnaire survey data exported from an online survey tool platform into an Excel file, the DSS is essentially a research DSS. In general, this research DSS promotes a multi-dimensionalized view to investigate research objects. To better comprehend the nature and value of this research DSS, the writer makes use of academic ideas from the DSS field to provide some conceptual clarification on it. In this regard, Ho and Sculli (1994) identified the following DSS features:

(a) Supportive on performing poorly structured decision-making tasks;
(b) Data and models organized around the decisions likely to be needed;
(c) System response is interactive and immediate;

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[1] The writer's teaching and research experience is in social sciences, thus the discussion in this paper on research methods is also primarily related to the social sciences domain, e.g., housing studies and business management.

In addition, Ho (2018) referred to Inmon *et al.* (2001) which recognizes a number of information user profiles of DSS users, e.g., a tourist, a farmer, an explorer and a miner, some concerned with exploring data while others more interested in exploiting them. As to the more specialized DSS for executive, known as the Executive Information Systems (EIS), Ho (2018) concurred with Lungu and Bâra (2007) who (i) argued the need of executives to have an EIS that can offer customized views that "extracts information from disparate sources and summarizes it into meaningful indicators" and (ii) emphasized the vitality of a multidimensional model underlying an EIS that is able to overhear business requests. In short, the DSS literature recognizes the DSS/EIS value of responsive and interactive support to decision-makers with diverse information needs and behavior based on decision-relevant and multidimensional models. To this writer, this decision-maker might as well be a researcher and the DSS is the EPT function for MDA.

Using the DSS/EIS lens to comprehend the EPT function for MDA as a research DSS, this writer maintains that the EPT function is capable of offering in an interactive way different pivot tables as views[2] on the underlying data file (treated as a data cube); this Excel function serves to support a researcher to perform the various poorly structured investigative tasks. These include exploring and exploiting research data with various Excel pivot tables. The EPT application objective is adopt different information user behaviors to discover and understand in multi-dimensionalized objects academically and practically valuable patterns, clusters and associations from the data file (i.e., the data cube). Thus, this application can support both inductive and deductive research approaches, notably in quantitative research methods. The next section provides an

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[2] A *view* is understood as a specific picture on a subset of the underlying data file.

account of a EPT application to study homeless survey data as an illustration of the ideas explained here.

A EPT application to study homelessness survey data

A EPT application is now employed to study a set of questionnaire survey data on homelessness perceptions in Hong Kong. The questionnaire survey was conducted by the writer in 2015 on his Facebook friends and subsequently reported in Ho (2015). The survey questions and some basic statistics are provided in *appendix 1*. The initial tasks to utilize the EPT function are to (i) cleanse the data, including conversion of certain responses into score values, and (ii) classify the questions into dimension fields and calculated value fields. This is illustrated in Table 1:

Table 1: Survey questions and their corresponding Excel field types based on the homelessness survey questions of Ho (2015)

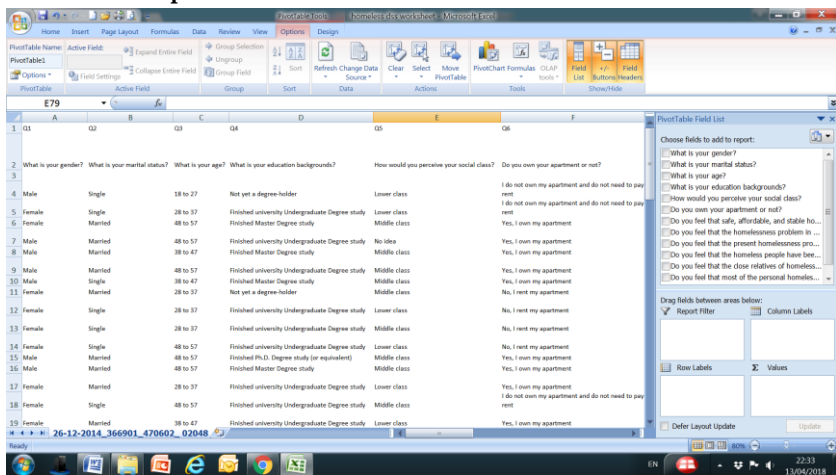| *Survey questions (Ho, 2015)*	*Field label: Dimensions (row or column) or calculated value fields*
Question 1: What is your gender? • Male • Female	**Gender**: Dimension
Question 2: What is your marital status? • Single • Married	**Marital status**: Dimension
Question 3: What is your age? • 18 to 27 • 28 to 37 • 38 to 47 • 48 to 57 • 58 to 67 • 68 or above	**Age range**: Dimension
Question 4: What is your education background? • Not yet a degree-holder • Finished University Undergraduate Degree study • Finished Master Degree study • Finished Ph.D. Degree study (or equivalent)	**Education background**: Dimension
Question 5: How would you perceive your social class? • Lower class • Middle class	**Self-perceived social class**: Dimension

• Upper class • No idea	
Question 6: Do you own your apartment or not? • Yes, I own my apartment • No, I rent my apartment • I do not own my apartment and do not need to pay rent	**Home ownership status**: Dimension
Question 7: Do you feel that safe, affordable, and stable housing is a basic human right? • Do not feel this way • Slightly feel this way • Strongly feel this way • No idea	**Housing as perceived human right**: Calculated value Coding: • Do not feel this way: 1 • Slightly feel this way: 2 • Strongly feel this way: 3 • No idea: skipped
Question 8: Do you feel that the homelessness problem in Hong Kong is caused by the severe housing affordability problem in Hong Kong? • No idea • Do not feel this way • Slightly feel this way • Strongly feel this way	**Housing affordability-caused homelessness perception**: Calculated value Coding: • Do not feel this way: 1 • Slightly feel this way: 2 • Strongly feel this way: 3 • No idea: skipped
Question 9: Do you feel that the present homelessness problem in Hong Kong can be effectively addressed via an appropriate housing policy? • No idea • Do not feel this way • Slightly feel this way • Strongly feel this way	**Perceived effectiveness of housing policy**: Calculated value Coding: • Do not feel this way: 1 • Slightly feel this way: 2 • Strongly feel this way: 3 • No idea: skipped
Question 10: Do you feel that the homelessness people have been badly treated by the Police, the Food and Environmental Hygiene, and Home Affairs Departments? • No idea • Do not feel this way • Slightly feel this way • Strongly feel this way	**Perceived about mistreatment on homeless people**: Calculated value Coding: • Do not feel this way: 1 • Slightly feel this way: 2 • Strongly feel this way: 3 • No idea: skipped
Question 11: Do you feel that the close relatives of homeless people have a duty to take care of these people as they are their close relatives? • No idea • Do not feel this way • Slightly feel this way • Strongly feel this way	**Perceived close relatives' duty**: Calculated value Coding: • Do not feel this way: 1 • Slightly feel this way: 2 • Strongly feel this way: 3 • No idea: skipped
Question 12: Do you feel that most of the personal homelessness problems in Hong Kong are fundamentally caused by the	**Perceived personal responsibility of homeless people**: Calculated value

homeless people themselves? • No idea • Do not feel this way • Slightly feel this way • Strongly feel this way	Coding: • Do not feel this way: 1 • Slightly feel this way: 2 • Strongly feel this way: 3 • No idea: skipped
Question 13: Do you feel that the overall homelessness problem in Hong Kong will get worse in the near future? • No idea • Do not feel this way • Slightly feel this way • Strongly feel this way	**Perceived future deterioration of the homeless problem**: Calculated value Coding: • Do not feel this way: 1 • Slightly feel this way: 2 • Strongly feel this way: 3 • No idea: skipped

Next, **Exhibit 1** shows the steps involved in creating pivot tables with the cleansed data file. Regarding Exhibit 1, the left-hand side of the screen is the data file imported from the online survey platform; the right-hand side shows the dimension and calculated value fields as well as the boxes for specifying column, row and calculated value fields for pivot-table construction in an interactive mode.
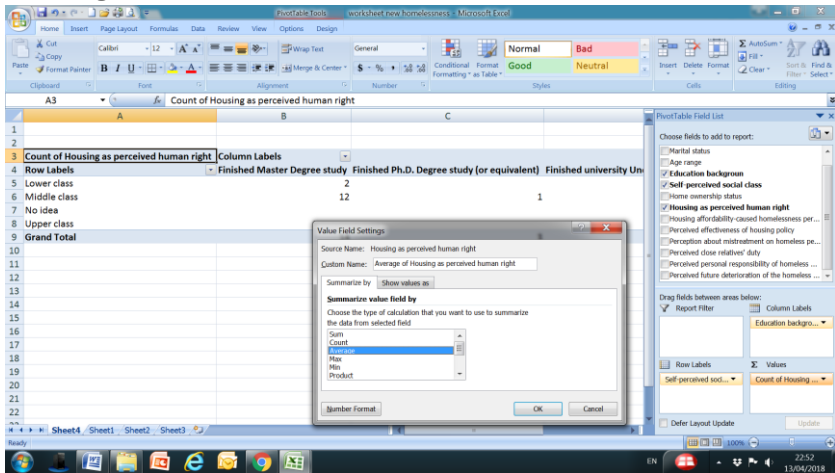
Exhibit 1: The pivot table function and the cleansed data file

Specifically, after choosing the option of **insert** and then **pivot table**, a user needs to highlight the range that covers the data file. After that, the user will see the pivot table construction screen likes that of **Exhibit 1**. The user could now use the

mouse to drag the dimension and calculated value fields into the boxes as shown on the right hand side of the screen above. In addition, the user needs to change the calculated value field value to average so as to obtain the average rating scores, see **Exhibit 2**.

Exhibit 2: selecting dimensions and defining the value field figure as an average one

Six brief pivot table exercises are now presented to show a few multidimensional data analysis findings with the homelessness survey data set (Ho, 2015) here:

Exercise 1: an analysis on "Housing as perceived human right" (re: question 7).

Exercise 1a: Column field is "education background" (re: question 4) and row field is "self-perceived social class" (re: question 5).

Average of Housing as perceived human right	Column Labels				
Row Labels	Finished Master Degree study	Finished Ph.D. Degree study (or equivalent)	Finished university Undergraduate Degree study	Not yet a degree-holder	Grand Total
Lower class	2.0		2.5	2.2	2.4
Middle class	2.7	3.0	2.7	2.0	2.6
No idea			1.6	2.0	1.7
Upper class			2.0	2.0	2.0
Grand Total	**2.6**	**3.0**	**2.5**	**2.1**	**2.4**

Interpretation: Those with higher education background have a stronger feeling that "housing is a human right"; and in middle and lower classes also have a stronger feeling on that.

Exercise 1b: Column field is "home ownership status" (re: question 6) and row field is "age group" (re: question 3).

Average of Housing as perceived human right	Column Labels			
Row Labels	I do not own my apartment and do not need to pay rent	No, I rent my apartment	Yes, I own my apartment	Grand Total
18 to 27	2.8	3.0	3.0	2.9
28 to 37	2.4	2.1	2.5	2.4
38 to 47	2.3	2.8	2.3	2.4
48 to 57	3.0	2.8	2.3	2.5
Grand Total	**2.5**	**2.5**	**2.4**	**2.4**

Interpretation: Those without home ownership have a stronger feeling that housing is a human right; and that those in the age group of 18-27 also have a stronger feeling on this too.

Exercise 1c: Column field is "gender" (re: question 1) and row field is "age group" (re: question 3).

Average of Housing as perceived human right	Column Labels		
Row Labels	Female	Male	Grand Total
18 to 27	3.0	2.8	2.9
28 to 37	2.4	2.4	2.4
38 to 47	2.4	2.4	2.4
48 to 57	3.0	2.3	2.5
Grand Total	2.4	2.4	2.4

Interpretation: Female in the age groups of 18-27 and 48-57 have a stronger feeling than others that housing is a human right.

Exercise 2: an analysis on "Housing affordability-caused homelessness perception" (re: question 8).

Exercise 2a: Column field is "education background" (re: question 4) and row field is "self-perceived social class" (re: question 5).

Average of Housing affordability-caused homelessness perception	Column Labels				
Row Labels	Finished Master Degree study	Finished Ph.D. Degree study (or equivalent)	Finished university Undergraduate Degree study	Not yet a degree-holder	Grand Total
Lower class	3.0		2.7	2.7	2.7
Middle class	2.4	3.0	2.8	2.0	2.6
No idea			1.7	2.0	1.7
Upper class			3.0	3.0	3.0
Grand Total	2.5	3.0	2.6	2.5	2.6

Interpretation: Those with both higher education background and social class have a stronger feeling than others that housing affordability fosters homelessness.

Exercise 2b: Column field is home ownership status (re: question 6) and row field is "age group" (re: question 3).

Average of Housing affordability-caused homelessness perception	Column Labels			
Row Labels	I do not own my apartment and do not need to pay rent	No, I rent my apartment	Yes, I own my apartment	Grand Total
18 to 27	2.6	2.0	2.0	2.4
28 to 37	2.9	2.6	2.6	2.7
38 to 47	2.3	2.8	2.5	2.5
48 to 57	3.0	2.8	2.6	2.7
Grand Total	2.7	2.6	2.5	2.6

Interpretation: Those who do not have home ownership and those in the age groups of 28-37 and 48-57 have a stronger feeling that housing affordability problem fosters homelessness.

Exercise 2c: Column field is "gender" (re: question 1) and row field is "age group" (re: question 3).

Average of Housing affordability-caused homelessness perception	Column Labels		
Row Labels	Female	Male	Grand Total
18 to 27	2.0	2.6	2.4
28 to 37	2.6	2.9	2.7
38 to 47	2.6	2.4	2.5
48 to 57	3.0	2.6	2.7
Grand Total	2.6	2.6	2.6

Interpretation: Female respondents in the age group of 48 to 57 and male respondents in the age group of 28-37 have a stronger feeling than others that housing affordability problem fosters homelessness.

Exercise 3: an analysis on "Perceived effectiveness of housing policy" (re: question 9).

Exercise 3a: Column field is "education background" (re: question 4) and row field is "self-perceived social class" (re: question 5).

Average of Perceived effectiveness of housing policy	Column Labels				
Row Labels	Finished Master Degree study	Finished Ph.D. Degree study (or equivalent)	Finished university Undergraduate Degree study	Not yet a degree-holder	Grand Total
Lower class	2.0		2.6	2.2	2.5
Middle class	2.5	1.0	2.2	2.5	2.3
No idea			1.5	3.0	1.7
Upper class			2.0	2.0	2.0
Grand Total	2.4	1.0	2.3	2.3	2.3

Interpretation: Respondents with lower education qualification and in lower social classes have a stronger feeling than others that the housing policy is useful for addressing the homelessness problem.

Exercise 3b: Column field is "home ownership status" (re: question 6) and row field is "age group" (re: question 3).

Average of Perceived effectiveness of housing policy	Column Labels			
Row Labels	I do not own my apartment and do not need to pay rent	No, I rent my apartment	Yes, I own my apartment	Grand Total
18 to 27	2.6	2.5	2.0	2.5
28 to 37	2.4	2.3	2.5	2.4
38 to 47	1.3	2.4	2.4	2.3
48 to 57	1.0	2.0	2.0	1.9
Grand Total	2.2	2.3	2.3	2.3

Interpretation: Respondents in the age group of 18-27 and those with own apartments have a stronger feeling than others that the housing policy is useful for addressing the homelessness problem.

Exercise 3c: Column field is "gender" (re: question 1) and row field is "age group" (re: question 3).

Average of Perceived effectiveness of housing policy	Column Labels		
Row Labels	Female	Male	Grand Total
18 to 27	2.7	2.4	2.5
28 to 37	2.4	2.4	2.4
38 to 47	2.5	2.1	2.3
48 to 57	2.0	1.9	1.9
Grand Total	2.4	2.2	2.3

Interpretation: Female respondents, especially those in the age group of 18-27 have a stronger feeling than others that the housing policy is useful for addressing the homelessness problem.

Exercise 4: an analysis on "Perception about mistreatment on homeless people" (re: question 10).

Exercise 4a: Column field is "education background" (re: question 4) and row field is "self-perceived social class" (re: question 5).

Average of Perception about mistreatment on homeless people.	Column Labels				
Row Labels	Finished Master Degree study	Finished Ph.D. Degree study (or equivalent)	Finished university Undergraduate Degree study	Not yet a degree-holder	Grand Total
Lower class	2.5		2.2	1.8	2.1
Middle class	2.0	2.0	2.1	2.0	2.1
No idea			1.7	2.0	1.7
Upper class			3.0	2.0	2.3
Grand Total	2.1	2.0	2.1	1.9	2.1

Interpretation: Those in the lower and middle classes have a stronger feeling than others that homeless people have been mistreated by the Police and the Food and Environmental Hygiene and Home Affairs Departments.

Exercise 4b: Column field is "home ownership status" (re: question 6) and row field is age group (re: question 3).

Average of Perception about mistreatment on homeless people.	Column Labels			
Row Labels	I do not own my apartment and do not need to pay rent	No, I rent my apartment	Yes, I own my apartment	Grand Total
18 to 27	2.0	2.5	1.0	2.0
28 to 37	2.1	2.2	2.0	2.1
38 to 47	1.3	2.0	1.8	1.8
48 to 57	3.0	2.3	2.6	2.5
Grand Total	**2.0**	**2.2**	**2.0**	**2.1**

Interpretation: Respondents with rented apartments and in the age group of 48-57 have a stronger feeling that homeless people have been mistreated by the Police and the Food and Environmental Hygiene and Home Affairs Departments.

Exercise 4c: Column field is "gender" (re: question 1) and row field is "age group" (re: question 3).

Average of Perception about mistreatment on homeless people.	Column Labels		
Row Labels	Female	Male	Grand Total
18 to 27	2.3	1.8	2.0
28 to 37	2.1	2.1	2.1
38 to 47	1.8	1.8	1.8
48 to 57	3.0	2.3	2.5
Grand Total	**2.1**	**2.0**	**2.1**

Interpretation: Female respondents and those in the age group of 48-57 have a stronger feeling than others that homeless people have been mistreated by the Police and the Food and Environmental Hygiene and Home Affairs Departments.

Exercise 5: an analysis on "Perceived close relatives' duty" (re: question 11).

Exercise 5a: Column field is "education background" (re: question 4) and row field is self-perceived social class (re: question 5).

Average of Perceived close relatives' duty	Column Labels				
Row Labels	Finished Master Degree study	Finished Ph.D. Degree study (or equivalent)	Finished university Undergraduate Degree study	Not yet a degree-holder	Grand Total
Lower class	1.5		1.8	2.2	1.9
Middle class	2.1	3.0	1.8	1.8	1.9
No idea			1.7	3.0	1.9
Upper class			2.0	2.0	2.0
Grand Total	**2.0**	**3.0**	**1.8**	**2.1**	**1.9**

Interpretation: Respondents with higher education qualification and in the upper class have a stronger feeling than others that close relatives of homeless people have a duty to take care of them.

Exercise 5b: Column field is "home ownership status" (re: question 6) and row field is age group (re: question 3).

Average of Perceived close relatives' duty	Column Labels			
Row Labels	I do not own my apartment and do not need to pay rent	No, I rent my apartment	Yes, I own my apartment	Grand Total
18 to 27	2.0	3.0	3.0	2.4
28 to 37	2.0	2.3	2.0	2.1
38 to 47	1.7	1.6	1.5	1.6
48 to 57	3.0	1.5	2.0	1.9
Grand Total	**2.0**	**2.1**	**1.8**	**1.9**

Interpretation: Those without home ownership and in the age group of 18-27 have a stronger feeling than others that close relatives of homeless people have a duty to take care of them.

Exercise 5c: Column field is "gender" (re: question 1) and row field is "age group" (re: question 3).

Average of Perceived close relatives' duty	Column Labels		
Row Labels	Female	Male	Grand Total
18 to 27	2.3	2.5	2.4
28 to 37	2.1	2.1	2.1
38 to 47	1.3	1.8	1.6
48 to 57	2.0	1.9	1.9
Grand Total	1.9	1.9	1.9

Interpretation: Respondents in the age group of 18-27 have a stronger feeling than others that close relatives of homeless people have a duty to take care of them.

Exercise 6: an analysis on "Perceived personal responsibility of homeless people" (re: question 12).

Exercise 6a: Column field is "education background" (re: question 4) and row field is self-perceived social class (re: question 5).

Average of Perceived personal responsibility of homeless people	Column Labels				
Row Labels	Finished Master Degree study	Finished Ph.D. Degree study (or equivalent)	Finished university Undergraduate Degree study	Not yet a degree-holder	Grand Total
Lower class	1.5		1.5	1.7	1.5
Middle class	1.8	1.0	1.6	2.3	1.7
No idea			1.7	1.0	1.6
Upper class			1.5	2.0	1.8
Grand Total	1.7	1.0	1.6	1.8	1.6

Interpretation: Those with lower education qualification and in the upper class have a stronger feeling than others that homeless people cause their personal homelessness problem.

Exercise 6b: Column field is "home ownership status" (re: question 6) and row field is "age group" (re: question: question 3).

Average of Perceived personal responsibility of homeless people	Column Labels			
Row Labels	I do not own my apartment and do not need to pay rent	No, I rent my apartment	Yes, I own my apartment	Grand Total
18 to 27	1.8	2.5	1.0	1.9
28 to 37	1.4	1.9	1.7	1.7
38 to 47	2.3	1.8	1.6	1.7
48 to 57	1.0	1.0	1.3	1.2
Grand Total	1.7	1.8	1.5	1.6

Interpretation: Respondents without home ownership and those in younger age groups have a stronger feeling than others that homeless people cause their personal homelessness problem.

Exercise 6c: Column field is "gender" (re: question 1) and row field is "age group" (re: question 3).

Average of Perceived personal responsibility of homeless people	Column Labels		
Row Labels	Female	Male	Grand Total
18 to 27	2.7	1.4	1.9
28 to 37	1.8	1.6	1.7
38 to 47	1.5	1.8	1.7
48 to 57	1.0	1.2	1.2
Grand Total	1.7	1.6	1.6

Interpretation: Female respondents, especially in the age group of 18-27 have a stronger feeling than others that homeless people cause their personal homelessness problem.

Overall, the EPT-based MDA is able to perform interactively as a research DSS to discover patterns in the data file on the homelessness survey. It encourages a multi-dimensionalized

image on the homelessness topic. The observed patterns serve to stimulate further development on theories and research questions that can be investigated with other research methods by the researcher. However, when this EPT-based MDA is employed in dissertation report writing, the researcher very likely will put some of the generated pivot tables in the dissertation report appendix as the MDA exercise inevitably generates a large set of pivot tables with different combinations of dimension and generated value fields in this data exploration and exploitation process.

CONCLUDING REMARKS

In this paper, the theoretical elaboration on the EPT application for MDA as a research DSS is presented and a brief illustration on the questionnaire survey data serves to inform researchers on how to treat and work with this DSS tool is provided. The main aim is to promote recognition on the substantial DSS value as well as a more sophisticated DSS practice with regard to the EPT function. It thus explicitly rejects treating this Excel function as a crude data analysis and presentation application. Finally, this paper encourages the academic community in the research methods field to further examine this topic, and not to consider the EPT function for MDA as an exclusive topic in the Computer Science and Management Information Systems fields.

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APPENDIX

Appendix 1: The Facebook-based survey questions on homelessness perceptions and responses statistics (Ho, 2015)

Survey questions	Survey statistics
Question 1: What is your gender?	Male: 68 (54.8%)
	Female: 56 (45.2%)
Question 2: What is your marital status?	Single: 57 (46.0%)
	Married: 67 (54.0%)
Question 3: What is your age?	18 to 27: 9 (7.3%)
	28 to 37: 52 (41.9%)
	38 to 47: 47 (37.9%)
	48 to 57: 14 (11.3%)
	58 to 67: 02(1.6%)
	68 or above: 0 (0.0%)
Question 4: What is your education background?	Not yet a degree-holder: 21 (16.9%)
	Finished University Undergraduate Degree study: 80 (64.5%)
	Finished Master Degree study: 22 (17.7%)
	Finished Ph.D. Degree study (or equivalent): 1 (0.8%)
Question 5: How would you perceive your social class?	Lower class: 41 (33.1%)
	Middle class: 64 (51.6%)
	Upper class: 5 (4.0%)
	No idea: 14 (11.3%)
Question 6: Do you own your apartment or not?	Yes, I own my apartment: 59 (47.6%)
	No, I rent my apartment: 36 (29.0%)
	I do not own my apartment and do not need to pay rent: 29 (23.4%)
Question 7: Do you feel that safe, affordable, and stable housing is a basic human right?	Do not feel this way: 15 (12.1%)
	Slightly feel this way: 41 (33.1%)
	Strongly feel this way: 63 (50.8%)
	No idea: 5 (4.0%)
Question 8: Do you feel that the homelessness problem in Hong Kong is caused by the low housing affordability problem in Hong Kong?	No idea: 3 (2.4%)
	Do not feel this way: 10 (8.1%)
	Slightly feel this way: 46 (37.1%)
	Strongly feel this way: 65 (52.4%)
Question 9: Do you feel that the present homelessness problem in Hong Kong can be effectively addressed via an appropriate housing policy?	No idea: 7 (5.6%)
	Do not feel this way: 29 (23.4%)
	Slightly feel this way: 42 (33.9%)
	Strongly feel this way: 46 (37.1%)
Question 10: Do you feel that the homelessness people have been badly treated by the Police, the Food and Environmental Hygiene, and Home Affairs Departments?	No idea: 15 (12.2%)
	Do not feel this way: 31 (25.2%)
	Slightly feel this way: 46 (37.4%)
	Strongly feel this way: 31 (25.2%)
Question 11: Do you feel that the close relatives of homeless people have a duty to take care of these people as they are their close relatives?	No idea: 12 (9.7%)
	Do not feel this way: 39 (31.5%)
	Slightly feel this way: 53 (42.7%)
	Strongly feel this way: 20 (16.1%)
Question 12: Do you feel that most of the personal homelessness problems in Hong Kong are fundamentally caused by the homeless people themselves?	No idea: 11 (8.9%)
	Do not feel this way: 49 (39.8%)
	Slightly feel this way: 53 (43.1%)
	Strongly feel this way: 10 (8.1%)
Question 13: Do you feel that the overall homelessness problem in Hong Kong will get worse in the near future?	No idea: 5 (4.0%)
	Do not feel this way: 9 (7.3%)
	Slightly feel this way: 61 (49.2%)
	Strongly feel this way: 49 (39.5%)