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**What incentives are being used by International  
Business Researchers in Their Surveys? A Review.**

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## **What incentives are being used by International Business Researchers in Their Surveys? A Review.**

### **Abstract**

Following a number of studies on the factors that might affect response rates in cross-national research, this work examines the types of incentives mentioned by international business scholars in mail surveys as well as how the use of such incentives affects the response rate. This work uses a content analysis of articles published in four leading international business journals in the period of 2000 - 2009. The results show that out of 217 studies under examination only 42 mentioned any type of incentives for enhancing the response rate. The most common incentives used by authors are confidentiality and anonymity, followed by a business reply envelope and a free report. Generally speaking, the results demonstrate that studies reporting incentives achieve, on average, a lower response rate from those that do not report them.

**Keywords:** Incentives, International business research, Mail survey, Response rate, Content analysis.

### **JEL Codes:**

C18 : Methodological Issues: General

C83: Survey Methods: Sampling Methods

F23: Multinational Firms: International Business

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## **Introduction**

As knowledge about international markets becomes increasingly important, undertaking a cross-national research is not an easy task, for both researchers and practitioners (Przeworski and Teune, 1966; Harzing, 2000). Because of that, methodological issues in international research attract the awareness of a number of academics. These scholars provide comprehensive overviews of relevant topics that should be looked at when undertaking a cross-national research (Sakaran, 1983; Nasif et al., 1991; Malhotra et al., 1996; Cavusgil and Das, 1997; Albaum et al., 1998; Yang et al., 2006; Hult et al., 2008a; Hult et al., 2008b; Rugman and Oh, 2011; Cascio, 2012).

One of the topics discussed, in a handful and rather fragmented manner, relates to the use of incentives for increasing the response rates in surveys, when undertaking a cross-national research (Eisinger et al., 1974; Keown, 1985; Ayal and Hornik, 1986; Dawson and Dickinson, 1988; Jobber and Sounders, 1988; Harzing, 2000; Jobber et al., 1991).

Despite the technological advances such as the internet, mail surveys are still “the most popular data collection method” used by international business (IB) researchers for collecting cross-national data (Yang et al., 2006, p. 216). As scholars strive to achieve high response rates from their surveys, the objectives of this work are as follow. First, this work aims to examine if statistical differences exist, across journals with regards to studies that reported or not reported incentives. Second, this work intends to inspect the types of incentives used by IB researchers between 2000 and 2009. Third, this work aims to investigate whether studies reporting incentives achieve, on average, higher response rates from those that do not report incentives. Finally, this work plans to examine if the response rate differs between studies that report or not report incentives with regards to a geographical area surveyed by authors.

In doing so, this study is structured as follow. First, it draws attention to the sparse literature that is available regarding the effects of incentives on the response rate in cross-national mail surveys. Second, it presents the analytical approach that is used to examine data gathered from four highly ranked international business journals between 2000 and 2009. Third, it reports the results in line with the paper’s objectives. Finally, it concludes.

### **Past research on the role of incentives in mail surveys in cross-national research**

The appropriate use of incentives in mail surveys is secondary only to the significance of data collection procedure techniques in improving postal surveys' response rates (Jones and Lang, 1982; Martin et al., 1989; Bellizzi and Hite, 1986; O'Keefe and Homer, 1987; Dillman et al., 2009). This is linked to the theory of social exchange (Blau, 1964; Homans, 1973; Tekleab and Chiaburu, 2011) which assumes that even a small incentive is efficient, in increasing the overall response rate, as it makes the respondent feel a sense of social obligation in taking part in a survey. Nonetheless, it appears that this benefit decreases the closer the value of the incentive comes to the actual value of the task (Trussell and Lavrakas, 2004). This happens, due to the economic exchange phenomenon which occurs when a person experiences a lessened social obligation to reciprocate by cooperating as a respondent (Dillman, 1978, 2000; Dillman et al., 2009).

A review of the available literature on the role of incentives in cross-national research, in particular, shows only a small number of published studies dedicated to the use of incentives in postal surveys. For example, Eisinger et al. (1974) find that a registered mail increase response rates from South America and Africa. They also find that personalisation in the way of personally typed and signed (versus mimeographed) covering letters and hand-typed (versus computerised) name and address labels does not increase response rates. Keown (1985) shows that a monetary incentive (i.e. a one dollar note) included in the questionnaire doubles the response rate in Japan but results in a zero response rate in Hong Kong. Dawson and Dickinson (1988) find that a commemorative stamp representing a thank you gift significantly increases response rates in the UK and Germany. Jobber et al. (1991) demonstrate that enclosing non-monetary incentives (e.g. in the form of a bookmark) are much more effective in increasing response rates in Singapore, Malaysia and Thailand rather than promising incentives (i.e. offer of a free copy of the survey results).

Generally speaking, the above individual cross-national studies confirm that the use of incentives has a positive impact on the response rate in cross-national research. This is consistent with findings in other social science disciplines (Church, 1993; Jobber et al., 2004; Edwards et al., 2005; Petrolia and

Bhattacharje, 2009). However to our knowledge no information is yet available on the type of incentives used by IB researchers and their effects on the response rate over time and at the aggregate level. As such, this work aims to fill this current gap.

### **Data collection and analysis**

In order to answer the paper's objectives a thorough and systematic content analysis of the four leading IB journals, from 2000 to 2009, is undertaken (Weber, 1990; Krippendorff, 2004). More specifically we review the following IB journals: Journal of International Business Studies (JIBS), International Business Review (IBR), Journal of World Business (JWB) and Management International Review (MIR). We select these four journals because they are "the key" specific IB journals and they are an important part of an IB research (DuBois and Reeb, 2000; Piekkari et al., 2009). We select a time period between 2000 and 2009 to examine our objectives in order to see what the picture looks like in the IB research, in the last decade, with respect to incentives used in mail surveys.

The data collection process includes the following steps. First, all studies are identified one-by-one through individual on-line access to a journal. This is possible via the library's electronic resources available at authors' institutions. The only exception is MIR where studies are located using electronic access to the journal plus the examination of hard copies of special and focus issues kindly supplied to authors from the journal's editor-in-chief's office. Second, every article (omitting editorials, commentaries and award winning) is then categorised based on the type of the data collection used by authors (e.g. primary, secondary or both). Third, within the primary data category, each article is then grouped into a questionnaire (i.e. where only a questionnaire was used for the data collection), and a questionnaire plus other primary data technique (e.g. interviews, focus groups) category. Finally, the questionnaire category is then re-grouped into the following sub-categories: a mail, an electronic, a fax, a personally-administered, an internal mail and a mixed method. This is undertaken in order to examine, in more detail, the ways through which a questionnaire was delivered to potential respondents (Table 1).

Table 1. Categorisation of Journal Articles with Respect to Survey Data Collection Methods, 2000 - 2009.

| Year         | Journal <sup>1</sup> | Mail(%)       | Electronic(%) | Personally Administered(%) | Fax(%) | Internal Mail(%) | Mixed Method(%) <sup>2</sup> | Not Mentioned(%) | Total Questionnaire(%) <sup>3</sup> | Total Primary Data <sup>4</sup> | Articles per Year |
|--------------|----------------------|---------------|---------------|----------------------------|--------|------------------|------------------------------|------------------|-------------------------------------|---------------------------------|-------------------|
| 2000         | JIBS                 | 10            | -             | -                          | -      | -                | -                            | -                | 10(53)                              | 19                              | 41                |
| 2001         | JIBS                 | 16            | -             | -                          | -      | -                | -                            | -                | 16(89)                              | 18                              | 45                |
| 2002         | JIBS                 | 13(93)        | -             | -                          | -      | -                | 1(7)                         | -                | 14(70)                              | 20                              | 43                |
| 2003         | JIBS                 | 6(86)         | -             | -                          | -      | -                | -                            | 1(14)            | 7(50)                               | 14                              | 37                |
| 2004         | JIBS                 | 9             | -             | -                          | -      | -                | -                            | -                | 9(69)                               | 13                              | 23                |
| 2005         | JIBS                 | 5             | -             | -                          | -      | -                | -                            | -                | 5(42)                               | 12                              | 33                |
| 2006         | JIBS                 | 10            | -             | -                          | -      | -                | -                            | -                | 10(59)                              | 17                              | 42                |
| 2007         | JIBS                 | 12(92)        | -             | -                          | -      | -                | 1(8)                         | -                | 13(57)                              | 23                              | 52                |
| 2008         | JIBS                 | 11            | -             | -                          | -      | -                | -                            | -                | 11(44)                              | 25                              | 62                |
| 2009         | JIBS                 | 7(70)         | 1(10)         | 1(10)                      | -      | -                | 1(10)                        | -                | 10(45)                              | 22                              | 71                |
| <b>Total</b> |                      | <b>99(35)</b> | <b>1(10)</b>  | <b>1(3)</b>                | -      | -                | <b>3(17)</b>                 | <b>1(25)</b>     | <b>105(57)</b>                      | <b>183</b>                      | <b>449</b>        |
| 2000         | IBR                  | 6(86)         | -             | -                          | -      | -                | 1(14)                        | -                | 7(33)                               | 21                              | 37                |
| 2001         | IBR                  | 8(80)         | -             | 2(20)                      | -      | -                | -                            | -                | 10(59)                              | 17                              | 35                |
| 2002         | IBR                  | 5(71)         | -             | 1(14)                      | -      | -                | 1(14)                        | -                | 7(50)                               | 14                              | 36                |
| 2003         | IBR                  | 11(92)        | -             | -                          | -      | -                | 1(8)                         | -                | 12(67)                              | 18                              | 36                |
| 2004         | IBR                  | 9(90)         | -             | 1(10)                      | -      | -                | -                            | -                | 10(59)                              | 17                              | 36                |
| 2005         | IBR                  | 6(67)         | -             | 1(11)                      | -      | -                | 2(22)                        | -                | 9(45)                               | 20                              | 36                |
| 2006         | IBR                  | 9(82)         | -             | 1(9)                       | -      | -                | 1(9)                         | -                | 11(58)                              | 19                              | 38                |
| 2007         | IBR                  | 1(20)         | 2(40)         | 1(20)                      | -      | -                | 1(20)                        | -                | 5(31)                               | 16                              | 34                |
| 2008         | IBR                  | 4(57)         | 1(14)         | 1(14)                      | -      | -                | 1(14)                        | -                | 7(39)                               | 18                              | 46                |
| 2009         | IBR                  | 12(63)        | 2(10)         | 3(16)                      | -      | -                | 2(10)                        | -                | 19(70)                              | 27                              | 48                |
| <b>Total</b> |                      | <b>71(25)</b> | <b>5(50)</b>  | <b>11(38)</b>              | -      | -                | <b>10(56)</b>                | -                | <b>97(52)</b>                       | <b>187</b>                      | <b>382</b>        |

Table 1. Categorisation of Journal Articles with Respect to Survey Data Collection Methods, 2000 - 2009 (continued)

| Year               | Journal <sup>1</sup> | Mail(%)       | Electronic(%) | Personally Administered(%) | Fax(%)   | Internal Mail(%) | Mixed Method(%) <sup>2</sup> | Not Mentioned(%) | Total Questionnaire(%) <sup>3</sup> | Total Primary Data <sup>4</sup> | Articles per Year |
|--------------------|----------------------|---------------|---------------|----------------------------|----------|------------------|------------------------------|------------------|-------------------------------------|---------------------------------|-------------------|
| 2000               | JWB                  | 5             | -             | -                          | -        | -                | -                            | -                | 5(45)                               | 11                              | 23                |
| 2001               | JWB                  | 3(60)         | -             | 2(40)                      | -        | -                | -                            | -                | 5(36)                               | 14                              | 22                |
| 2002               | JWB                  | 4             | -             | -                          | -        | -                | -                            | -                | 4(40)                               | 10                              | 25                |
| 2003               | JWB                  | 4(80)         | -             | 1(20)                      | -        | -                | -                            | -                | 5(33)                               | 15                              | 27                |
| 2004               | JWB                  | 6(75)         | -             | 2(25)                      | -        | -                | -                            | -                | 8(50)                               | 16                              | 30                |
| 2005               | JWB                  | 4(80)         | -             | 1(20)                      | -        | -                | -                            | -                | 5(33)                               | 15                              | 28                |
| 2006               | JWB                  | 7(64)         | -             | 3(27)                      | -        | -                | 1(9)                         | -                | 11(65)                              | 17                              | 28                |
| 2007               | JWB                  | 8(89)         | -             | 1(11)                      | -        | -                | -                            | -                | 9(60)                               | 15                              | 34                |
| 2008               | JWB                  | 7(78)         | 1(11)         | -                          | -        | -                | 1(11)                        | -                | 9(56)                               | 16                              | 33                |
| 2009               | JWB                  | 12(79)        | 1(7)          | 1(7)                       | 1(7)     | -                | -                            | -                | 15(75)                              | 20                              | 39                |
| <b>Total</b>       |                      | <b>60(21)</b> | <b>2(20)</b>  | <b>11(38)</b>              | <b>1</b> | <b>-</b>         | <b>2(11)</b>                 | <b>-</b>         | <b>76(51)</b>                       | <b>149</b>                      | <b>289</b>        |
| 2000               | MIR                  | 5(83)         | -             | 1(17)                      | -        | -                | -                            | -                | 6(60)                               | 10                              | 21                |
| 2001               | MIR                  | 4             | -             | -                          | -        | -                | -                            | -                | 4(40)                               | 10                              | 16                |
| 2002               | MIR                  | 7(70)         | -             | -                          | -        | -                | 1(10)                        | 2(20)            | 10(59)                              | 17                              | 28                |
| 2003               | MIR                  | 4(50)         | -             | 3(37)                      | -        | -                | 1(13)                        | -                | 8(47)                               | 17                              | 39                |
| 2004               | MIR                  | 9(90)         | -             | 1(10)                      | -        | -                | -                            | -                | 10(53)                              | 19                              | 41                |
| 2005               | MIR                  | 6(60)         | 1(10)         | 1(10)                      | -        | 1(10)            | 1(10)                        | -                | 10(59)                              | 17                              | 42                |
| 2006               | MIR                  | 5             | -             | -                          | -        | -                | -                            | -                | 5(36)                               | 14                              | 31                |
| 2007               | MIR                  | 8(89)         | 1(11)         | -                          | -        | -                | -                            | -                | 9(82)                               | 11                              | 36                |
| 2008               | MIR                  | 3             | -             | -                          | -        | -                | -                            | -                | 3(38)                               | 8                               | 32                |
| 2009               | MIR                  | 4(80)         | -             | -                          | -        | -                | -                            | 1(20)            | 5(50)                               | 10                              | 34                |
| <b>Total</b>       |                      | <b>55(19)</b> | <b>2(20)</b>  | <b>6(21)</b>               | <b>1</b> | <b>1</b>         | <b>3(17)</b>                 | <b>3(75)</b>     | <b>70(53)</b>                       | <b>133</b>                      | <b>320</b>        |
| <b>Grand Total</b> |                      | <b>285</b>    | <b>10</b>     | <b>29</b>                  | <b>1</b> | <b>1</b>         | <b>18</b>                    | <b>4</b>         | <b>348</b>                          | <b>652</b>                      | <b>1440</b>       |

Note:

<sup>1</sup> JIBS- Journal of International Business Studies; IBR- International Business Review; JWB- Journal of World Business; MIR- Management International Review.<sup>2</sup> Where two or more methods were used together (e.g. a mail and personally-administered survey, a mail, fax and personally-administered survey).<sup>3</sup> Studies that only used a questionnaire as a primary data collection method.<sup>4</sup> Primary data was only used (e.g. interviews, experiment, focus groups) for collecting data.

The identification of incentives used by authors to enhance the response rate is based on two phases. In the first phase, we look whether incentives are mentioned or not by authors in the methodology section of their papers. In the second phase, we examine the type of incentives used by authors. Any confusions relating to the coding process are resolved by discussions between authors.

Table 1 shows that 652 (out of 1440) papers published in the four leading IB journals use a primary data collection in the period from 2000 to 2009. In total, 348 (out of 652) studies are identified as those that used a questionnaire as their only data collection method. Further, Table 1 indicates that the three most common ways of sending a questionnaire to potential responders was by post (285 out of 348), followed by personally-administered delivery (29 out of 348) and a mixed-method approach (18 out of 348). In addition, Table 1 also points out that only 4 studies (out of 348) fail to mention how a questionnaire was delivered.

In order to examine our objectives, we decide to focus only on studies that utilise a postal survey as a primary data collection method for the following reasons. First, is the fact that mail surveys are still a popular way of gathering data amongst IB researchers (Yang et al., 2006). Second, incentives are an integral part of the data collection procedures proposed by scholars for enhancing the response rate (Keown, 1985; Bellizzi and Hite, 1986; Jobber et al., 1991; Dillman, 1978, 2000; Jobber et al., 2004; Sounders et al., 2006; Dillman et al. 2009). Finally, the largest number of studies uses a postal survey as a data collection technique in our sample,

Based on the above criterias, and the fact that we also want to investigate the average response rate amongst studies that used different types of incentives, only 217 articles (out of 285 studies reported in Table 1) are included in our further analysis. This is because we focus our attention only on those articles in which authors explicitly express the response rate from the mail survey in the percentage format. We believe that by doing so, we can show the true effect that the use of an incentive might have on the level of the response rate without incorporating any biases.



Out of 217 papers examined, JIBS offers the largest number of articles (72 or 33%), followed by IBR (60 or 28%), then MIR (43 or 20%), and JWB (42 or 19%). A list of the sample articles is available from the corresponding author.

Our sample's characteristics (Table 2) indicate that the majority of articles are written by two authors (90 or 41%), followed by three authors (56 or 26%), and a single authorship (41 or 19%). The most surveyed continent by authors is Europe (67 or 31%), followed by Asia (44 or 20%), and North America (25 or 12%). More than half of the studies under investigation (133 or 61%) do not mention the used a pilot study to pre-test the postal questionnaire. The most reported response rate by authors is between 20 to 29 percent (57 papers or 26%), and the overall mean response rate is 38%. This is a higher percentage than that obtained by Yang et al. (2006) for postal surveys across IB journals from 1992 to 2003. Table 2 also shows that out of 217 studies under investigation, only 42 (or 19%) mentioned incentives of any kind. The most common type of incentives used by authors is confidentiality and anonymity (14 or 6%) and the least common type are jointly non-monetary gifts (1 or 0.5 %), and a free report and non-monetary gifts (1 or 0.5%).

Table 2. Sample Characteristics.

|  | Categories   | Total (N=217) <sup>1</sup> | Mean (Std.dev)          | Min/Max |
|--|--|----------------------------|-------------------------|---------|
|  |  | Frequency(%)               |                         |         |
| Number of Authors  | One Author   | 41(19)                     | 2.4(0.9)                | 1/4     |
|  | Two Authors  | 90(41)                     |                         |         |
|  | Three Authors  | 56(26)                     |                         |         |
|  | More than Three Authors                              | 30(14)                     |                         |         |
| Continents Surveyed  | North America  | 25(12)                     | 6.5(6.9)                | 1/29    |
|  | Europe   | 67(31)                     |                         |         |
|  | Asia   | 44(20)                     |                         |         |
|  | Australia  | 5(2)                       |                         |         |
|  | New Zealand  | 4(2)                       |                         |         |
|  | Middle-East  | 4(2)                       |                         |         |
|  | Africa   | 2(1)                       |                         |         |
|  | North & South America                                | 5(2)                       |                         |         |
|  | North America & Europe                               | 9(4)                       |                         |         |
|  | North America & Asia                                 | 2(1)                       |                         |         |
|  | Europe & Asia  | 4(2)                       |                         |         |
|  | Australia & Europe                                   | 2(1)                       |                         |         |
|  | New Zealand & Europe                                 | 1(0.5)                     |                         |         |
|  | Australia & Asia                                     | 2(1)                       |                         |         |
|  | Australia & New Zealand                              | 1(0.5)                     |                         |         |
|  | North America, Europe & Asia                         | 21(10)                     |                         |         |
|  | North America, Europe & Australia                    | 2(1)                       |                         |         |
|  | North & South America & Asia                         | 1(0.5)                     |                         |         |
|  | North & South America & Europe                       | 2(1)                       |                         |         |
|  | Africa, Europe & Asia                                | 1(0.5)                     |                         |         |
|  | Australia, New Zealand & Asia                        | 1(0.5)                     |                         |         |
|  | North & South America, Europe & Asia                 | 2(1)                       |                         |         |
|  | North America, Asia, Europe & Australia              | 1(0.5)                     |                         |         |
|  | North & South America, Asia & Africa                 | 3(1)                       |                         |         |
|  | North & South America Asia & Australia               | 1(0.5)                     |                         |         |
|  | North America Europe Asia & Middle East              | 1(0.5)                     |                         |         |
|  | North & South America Asia Europe & Australia        | 2(1)                       |                         |         |
| North America Europe Asia Australia New Zealand & Middle East      | 1(0.5)   |                            |                         |         |
| North and South America Asia Africa Europe Australia & Middle East | 1(0.5)   |                            |                         |         |
| Pilot Study  | Not referred   | 133(61)                    | 0.4(0.5)                | 0/1     |
|  | Referred   | 84(39)                     |                         |         |
| Response Rate  | Less than 10 %                                       | 20(9)                      | 37.5(20.7) <sup>2</sup> | 7/100   |
|  | 10 to 19.99 %  | 27(12)                     |                         |         |
|  | 20 to 29.99 %  | 57(26)                     |                         |         |
|  | 30 to 39.99 %  | 43(20)                     |                         |         |
|  | 40 to 49.99 %  | 33(15)                     |                         |         |
|  | 50 to 59.99 %  | 14(6)                      |                         |         |
|  | 60 to 69.99 %  | 9(4)                       |                         |         |
|  | 70 to 79.99 %  | 7(3)                       |                         |         |
|  | 80 to 89.99 %  | 5(2)                       |                         |         |
| 90 to 99.99 %  | 2(1)   |                            |                         |         |
| Incentives   | Not Mentioned  | 175(81)                    | 0.2(0.4)                | 0/1     |
|  | Mentioned  | 42(19)                     |                         |         |
| Incentives used  | Not Mentioned  | 175(81)                    | 0.7(1.8)                | 0/9     |
|  | Confidentiality and Anonymity                        | 14(6)                      |                         |         |
|  | Confidentiality, Anonymity and Free Report           | 4(2)                       |                         |         |
|  | Confidentiality, Anonymity and Business Reply Report | 4(2)                       |                         |         |
|  | Free Report  | 6(2)                       |                         |         |
|  | Free report and Non-monetary gifts                   | 1(0.5)                     |                         |         |
|  | Business Reply Envelope                              | 7(3)                       |                         |         |
|  | Endorsement Letter                                   | 2(1)                       |                         |         |
|  | Monetary Gifts <sup>3</sup>                          | 3(1)                       |                         |         |
|  | Non-monetary gifts <sup>4</sup>                      | 1(0.5)                     |                         |         |

Notes:

<sup>1</sup>Including studies that reported the response rate in the % format, only.<sup>2</sup>In the case of a cross-country study, the mean response rate was included.<sup>3</sup>The currencies mentioned were £1, 1US\$ and 10 SEK.<sup>4</sup>A book.

## Results

### *Across journals*

Table 3 shows that statistically significant differences are found between journals when incentives are reported or not by authors ( $\chi^2=15.67$ ,  $p<.01$ ). The journal with the most studies where authors referred to incentives is JWB (17 studies or 40%), followed by IBR (10 studies or 24%) and JIBS (8 studies or 19%).

Table 3. Reporting Incentives by Journal<sup>1</sup>.

|            | Mean(Std.dev) | $\chi^2$ (sig) <sup>2</sup> | Power<br>(1- $\beta$ err prob.) <sup>3</sup> | Categories   | JIBS<br>n=72(%) | IBR<br>n=60(%) | JWB<br>n=42(%) | MIR<br>n=43(%) | Total<br>N=217 |
|------------|---------------|-----------------------------|--|--------------|-----------------|----------------|----------------|----------------|----------------|
| Incentives | 0.2(0.4)      | 15.67(0.00)***              | 0.92   | Not reported | 64(37)          | 50(29)         | 25(14)         | 36(21)         | 175(81)        |
|            |               |                             |  | Reported     | 8(19)           | 10(24)         | 17(40)         | 7(17)          | 42(19)         |

Notes:

<sup>1</sup>For studies that reported or not reported the response rate in the % format.

<sup>2</sup>The Fisher's exact test was undertaken to confirm the obtained result.

<sup>3</sup>Following the work of Brock (2003), a post hoc statistical power analysis was calculated using G\*Power developed by Faul, Erdfelder, Buchner and Lang (2009), Faul, Erdfelder, Lang and Buchner (2007) and available from <http://www.psych.uni-duesseldorf.de/abteilungen/aap/gpower3/>.  $\alpha = 0.05$

\* $p<.01$

### *Incentives and response rate*

Table 4 shows that only 42 studies (out of 217) mentioned incentives for enhancing the response rate. The findings in Table 4 also demonstrate that there is a statistically significant difference between studies that report or not report the response rate when incentives are concerned ( $\chi^2=15.44$ ,  $p<.01$ ).

Table 4. Reporting of Response Rate and Incentives<sup>1</sup>.

|               | Mean(Std.dev) | $\chi^2$ (sig) <sup>2</sup> | Power<br>(1- $\beta$ err prob.) <sup>3</sup> | Categories            | Incentives   |          | Total<br>N=285(%) |
|---------------|---------------|-----------------------------|--|-----------------------|--------------|----------|-------------------|
|               |               |                             |  |                       | Not reported | Reported |                   |
| Response Rate | 0.8(0.4)      | 15.44(0.00)***              | 0.99   | Not reported          | 68(28)       | 0        | 68(24)            |
|               |               |                             |  | Reported <sup>3</sup> | 175(72)      | 42       | 217(76)           |

Notes:

<sup>1</sup>For studies that reported or not reported the response rate in the % format. <sup>2</sup>The Fisher's exact test was undertaken to confirm the obtained result. <sup>3</sup>Following the work of Brock (2003), a post hoc statistical power analysis was calculated using G\*Power developed by Faul et al., (2007, 2009) and available from <http://www.psych.uni-duesseldorf.de/abteilungen/aap/gpower3/>.  $\alpha = 0.05$  \*\*\* $p<0.01$

Further, Table 5 shows that the average response rate for studies that mention incentives is equal to 34% and for studies that do not mention incentives is equal to 38%. This result interestingly indicates that studies using incentives, on average, achieve 4% lower response rate from those that do not report incentives. However, the difference is statistically insignificant.

Table 5. Average Response Rate by Incentives<sup>1</sup>.

| Incentives    |       | Mean(Std.dev) | t(sig) <sup>2</sup>     | Power<br>(1-β err prob.) <sup>3</sup> |
|---------------|-------|---------------|-------------------------|---------------------------------------|
| Not Reporting | n=175 | 38.4(21)      | 1.29(0.20) <sup>4</sup> | 0.39                                  |
| Reporting     | n=42  | 33.8(18)      |                         |                                       |
| Total         | N=217 | 37.5(21)      |                         |                                       |

Notes:

<sup>1</sup>For studies that reported or not reported the response rate in the % format.

<sup>2</sup>The Wilcoxon-Mann-Whitney test was undertaken to confirm the obtained result.

<sup>3</sup>Following the work of Brock (2003), a post hoc statistical power analysis was calculated using G\*Power developed by Faul et al., (2007, 2009) and available from <http://www.psych.uni-duesseldorf.de/abteilungen/aap/gpower3/>. α = 0.05

<sup>4</sup>When H1 =0 then Pr(T > |t|) = 0.20. However, when H1>0 then Pr(T > t) = 0.10.

The results in Table 6 indicate the most common type of incentives being used by authors are confidentiality and anonymity (14 studies or 33%), followed by a business reply envelope (7 studies, 17%), and a free report (6 studies, 14%).

The findings in Table 6 also reveal that the highest average response rate (41%) was for studies that use confidentiality and anonymity, followed by authors that used confidentiality, anonymity and a business reply envelope (40%), and then confidentiality, anonymity and a free report (38%). The lowest average response rate is reported for authors that used a free report and non-monetary gifts as incentives (17%). Furthermore it can be seen from Table 6 that the average response rate for studies that report monetary gifts is 11% lower from those studies that report the use of non-monetary gifts.

Table 6. Incentives Type and Average Response Rate<sup>1</sup>.

| Incentives used  | n(%)     | Mean(Std.dev) | F(sig) <sup>2</sup> | Power<br>(1-β err prob.) <sup>3</sup> |
|--|----------|---------------|---------------------|---------------------------------------|
| Confidentiality and Anonymity                          | n=14(33) | 41.1(24.1)    | 0.97(0.47)          | 0.99                                  |
| Confidentiality, Anonymity and Free Report             | n=4(10)  | 37.5(9.3)     |                     |                                       |
| Confidentiality, Anonymity and Business Reply Envelope | n=4(10)  | 40.1(18.0)    |                     |                                       |
| Free Report  | n=6(14)  | 28.2(7.1)     |                     |                                       |
| Free Report and Non-monetary gifts                     | n=1(2)   | 17.0(0.0)     |                     |                                       |
| Business Reply Envelope                                | n=7(17)  | 30.0(15.2)    |                     |                                       |
| Endorsement Letter                                     | n=2(5)   | 18.0(5.7)     |                     |                                       |
| Monetary Gifts <sup>4</sup>                            | n=3(7)   | 22.0(1.0)     |                     |                                       |
| Non-monetary gifts <sup>5</sup>                        | n=1(2)   | 33.0(0)       |                     |                                       |
| Total  | N=42     | 33.8(17.7)    |                     |                                       |

Notes:

<sup>1</sup>For studies that reported the response rate in the % format and mentioned incentives' type.

<sup>2</sup>The Kruskal-Wallis test was undertaken to confirm the obtained result.

<sup>3</sup>Following the work of Brock (2003), a post hoc statistical power analysis was calculated using G\*Power developed by Faul et al., (2007, 2009) and available from <http://www.psych.uni-duesseldorf.de/abteilungen/aap/gpower3/>.

Based on the average group size and  $\alpha = 0.05$ .

<sup>4</sup>The currencies mentioned were £1, 1US\$ and 10 SEK.

<sup>5</sup>A book.

Moving on to Table 7 it can be seen that studies that mentioned confidentiality and anonymity as incentives differ statistically significantly from those that do not mention them ( $t = -1.95, p < .05$ ). In addition, if we combine together all studies that mentioned confidentiality and anonymity as incentives with other type of incentives as shown in Table 6, then the results in Table 7 indicate that those studies differ statistically significantly from those that do not report them ( $t = -2.70, p < .01$ ). Further, the average response rate for those studies is 13% higher than for those that do not report such incentives.

Table 7. Incentives Type and Average Response Rate<sup>1</sup>.

| Incentives used                                    | Mean(Std.dev) | t(sig) <sup>2</sup> | Power<br>(1- $\beta$ err prob.) <sup>3</sup> | Categories   | Average RR(Std.dev) | Sample size<br>n(%) |
|--|---------------|---------------------|--|--------------|---------------------|---------------------|
| Confidentiality and Anonymity                      | 0.3(0.5)      | -1.95(0.05)**       | 0.53   | Not reported | 30.1(12.5)          | 28(67)              |
|  |               |                     |  | Reported     | 41.1(24.1)          | 14(33)              |
| Confidentiality, Anonymity and Others <sup>4</sup> | 0.5(0.5)      | -2.70(0.01)***      | 0.85   | Not reported | 26.6(10.5)          | 20(48)              |
|  |               |                     |  | Reported     | 40.3(20.5)          | 22(52)              |
| Free Report  | 0.1(0.4)      | 0.83(0.41)          | 0.27   | Not reported | 34.7(18.8)          | 36(86)              |
|  |               |                     |  | Reported     | 28.2(7.1)           | 6(14)               |
| Free Report and Non-monetary gifts <sup>5</sup>    | 0.2(0.4)      | 1.18(0.25)          | 0.41   | Not reported | 35.2(18.9)          | 35(83)              |
|  |               |                     |  | Reported     | 26.6(7.7)           | 7(17)               |
| Business Reply Envelope                            | 0.2(0.4)      | 0.61(0.56)          | 0.16   | Not reported | 34.5(18.3)          | 35(83)              |
|  |               |                     |  | Reported     | 30.0(15.2)          | 7(17)               |
| Business Reply Envelope and Others <sup>6</sup>    | 0.3(0.5)      | -0.01(0.99)         | 0.05   | Not reported | 33.7(18.5)          | 31(74)              |
|  |               |                     |  | Reported     | 33.8(16.2)          | 11(26)              |
| Monetary Gifts <sup>7</sup>                        | 0.7(0.3)      | 1.20(0.24)          | 0.49   | Not reported | 34.7(18.1)          | 39(93)              |
|  |               |                     |  | Reported     | 22.0(1.0)           | 3(7)                |
| Non-monetary Gifts and Others <sup>8</sup>         | 0.1(0.2)      | 0.71(0.48)          | 0.21   | Not reported | 34.2(17.9)          | 40(95)              |
|  |               |                     |  | Reported     | 25.0(11.3)          | 2(5)                |

Notes:

<sup>1</sup>For studies that reported the response rate in the % format and either mentioned or not mentioned incentives' types.

<sup>2</sup>The Wilcoxon-Mann-Whitney test were undertaken to confirm the obtained results.

<sup>3</sup>Following the work of Brock (2003), a post hoc statistical power analysis was calculated using G\*Power developed by Faul et al., (2007, 2009) and available from <http://www.psych.uni-duesseldorf.de/abteilungen/aap/gpower3/>.  $\alpha = 0.05$

<sup>4</sup>This category contains the following sub-categories: confidentiality and anonymity; confidentiality, anonymity and free report; and confidentiality, anonymity and business reply report. See Table 6.

<sup>5</sup>This category contains the following sub-categories: free report; free report and non-monetary gifts. See Table 6.

<sup>6</sup>This category contains the following sub-categories: business reply envelope; confidentiality, anonymity and business reply envelope. See Table 6.

<sup>7</sup>The currencies mentioned were £1, 1US\$ and 10 SEK.

<sup>8</sup>This category contains the following sub-categories: non-monetary gifts; free report and non-monetary gifts. See Table 6.

\*\*\* $p < .01$ ; \*\*  $p < 0.05$

### *Incentives, response rate and continent(s) surveyed.*

As already mentioned in Table 2 the most surveyed continent by authors between 2000 and 2009 is Europe (67 or 31%) followed by Asia (44 or 20%), and North America (25 or 12%). The findings in Table 8 indicate that out of 67 studies that surveyed Europe, only 11 studies (16%) mentioned incentives of any type.

The average response rate for those studies is 7% lower than for those that did not use incentives when surveyed Europe. Additionally, out of 44 studies that surveyed Asia, only 10 studies (23%) mentioned incentives. The average response rate for those studies is 15% lower than for those studies that do not mention incentives. Furthermore, out of 25 studies that surveyed North America, only 5 studies (20%) reported incentives. The average response rate for those studies is 11% lower than for those studies that do not mention incentives. None of the above results are statistically significant.

Further, the results in Table 8 show that there are only a few studies that either report or did not report incentives when collecting data from the same continent or continents. The results demonstrate that studies which mention incentives achieve an average higher response rate than those that do not. The average response rate for those studies ranges from 42% to 93% as oppose to 21% to 35% for those studies that did not report incentives. However, an exception to the above are studies for Africa. This is because a study that did not report incentives achieved the 85% average response rate while a study that reported incentives achieved only the 9% average response rate. None of the above results are, however, statistically significant.

In addition, the results in Table 8 reveal that there are several studies that did not report any type of incentives when collecting data from particular continents. The highest average response rate was reported for studies that surveyed North America and Asia (68%) and the lowest average response rate was reported for a study that surveyed North America, Europe, Asia, Australia, New Zealand and Middle East simultaneously (10%). None of the above results are statistically significant.

The results in Table 8 also display that there are three studies that only reported incentives when collecting data from particular continents. The highest average response rate is reported for a study that surveyed North America, Europe, Asia and Middle East (45%), followed by a study that surveyed Australia, New Zealand and Asia (40%) and studies that surveyed Australia and Europe (35%). The results turned to be statistically significant for all those studies.

Based on the results shown in Table 8, an interesting finding is demonstrated for studies that surveyed Australia and New Zealand individually. It is seen that the average response rate is higher for studies that reported incentives rather than for those studies that did not report incentives. The study that surveyed

Australia and reported incentives achieved an average response rate at the level of 53 %, which is 11% higher than that of New Zealand. However, when looking at the results for a study that surveyed Australia and New Zealand simultaneously, the findings show that the study did not use any type of incentives. The average response rate for this study was 20%.

## **Conclusions and discussions**

In a period when cross-national researchers are confronted with a trend of increasing unwillingness of the general public to take part in the postal survey research, the achievement of a low non-response rate remains conditional upon the implementation of proven strategies for stimulating response rates (Cycota and Harris 2006; Baruch and Holtom, 2008). One of the strategies available to researchers for doing so, can be the use of incentives as previous literature has shown that incentives can stimulate response rates in cross-national research.

This work provides evidence of the type of incentives used by IB researchers in their mail surveys studies in the four highly ranked journals between 2000 and 2009. Out of 217 studies under examination, only 42 mention incentives for enhancing response rates. The most common incentives used by authors in mail surveys are confidentiality and anonymity, followed by a business reply envelope and a free report. The findings show that there are statistically significant differences between studies that report or not the response rate when incentives are concerned. Studies that report incentives achieve lower average response rate from those that do not report incentives. This is, somehow, an interesting results and in contrary to previous knowledge regarding the use of incentives in the cross-national research.

The highest average response rate is achieved for studies that offered confidentiality and anonymity, followed by studies that mentioned confidentiality, anonymity and a business reply envelope, and then studies that refer to confidentiality, anonymity and a free report as an incentive. However, the lowest average response rate is reported for studies that cited a free report and non-monetary gifts as incentives. Furthermore, the average response rate for studies that mentioned monetary gifts is lower from those that offered non-monetary gifts.

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Table 8. Incentives by Continents Surveyed<sup>1</sup>.

| Continents Surveyed  | Mean(Std.dev) | $\chi^2$ (sig) <sup>2</sup> | Power<br>(1- $\beta$ err prob.) <sup>3</sup> | Categories   | n(%) <sup>4</sup> | Average RR (Std.dev)    |
|--|---------------|-----------------------------|--|--------------|-------------------|-------------------------|
| North America  | 0.1(0.3)      | 0.01(0.93)                  | 0.05   | Not reported | 20(80)            | 36.1(11.3)              |
|  |               |                             |  | Reported     | 5(20)             | 24.8(10.8)              |
| Europe   | 0.3(0.5)      | 0.54(0.46)                  | 0.09   | Not reported | 56(83)            | 38.1(19.9)              |
|  |               |                             |  | Reported     | 11(16)            | 30.6(10.4)              |
| Asia   | 0.2(0.4)      | 0.40(0.53)                  | 0.08   | Not reported | 34(77)            | 44.9(24.8) <sup>5</sup> |
|  |               |                             |  | Reported     | 10(23)            | 30.1(11.0)              |
| Australia  | 0.2(0.2)      | 0.00(0.97)                  | 0.07   | Not reported | 4(80)             | 36.0(11.5)              |
|  |               |                             |  | Reported     | 1(20)             | 53.0(0.0)               |
| New Zealand  | 0.0(0.1)      | 0.08(0.77)                  | 0.06   | Not reported | 3(75)             | 36.0(14.7)              |
|  |               |                             |  | Reported     | 1(25)             | 42.0(0.0)               |
| Middle-East  | 0.0(0.1)      | 0.08(0.77)                  | 0.06   | Not reported | 3(75)             | 51.7(12.1)              |
|  |               |                             |  | Reported     | 1(25)             | 20.0(0.0)               |
| North & South America  | 0.0(0.2)      | 0.00(0.97)                  | 0.07   | Not reported | 4(80)             | 41.5(16.6)              |
|  |               |                             |  | Reported     | 1(20)             | 22.0(0.0)               |
| North America & Europe   | 0.0(0.2)      | 0.05(0.82)                  | 0.12   | Not reported | 7(78)             | 34.4(17.8)              |
|  |               |                             |  | Reported     | 2(22)             | 31.0(9.9)               |
| Europe & Asia  | 0.0(0.1)      | 0.08(0.73)                  | 0.06   | Not reported | 3(75)             | 32.3(2.9)               |
|  |               |                             |  | Reported     | 1(25)             | 57.0(0.0)               |
| Africa   | 0.0(0.1)      | 1.22(0.27)                  | 0.09   | Not reported | 1                 | 85.0(0.0)               |
|  |               |                             |  | Reported     | 1                 | 9.0(0.0)                |
| Australia & Asia   | 0.0(0.1)      | 1.22(0.27)                  | 0.09   | Not reported | 1                 | 35.0(0.0)               |
|  |               |                             |  | Reported     | 1                 | 93.0(0.0)               |
| North & South America & Europe                                     | 0.0(0.1)      | 1.22(0.27)                  | 0.09   | Not reported | 1                 | 23.0(0.0)               |
|  |               |                             |  | Reported     | 1                 | 56.0(0.0)               |
| North America, Europe & Australia                                  | 0.01(0.1)     | 1.22(0.27)                  | 0.09   | Not reported | 1                 | 21.0(0.0)               |
|  |               |                             |  | Reported     | 1                 | 42.0(0.0)               |
| North & South America, Europe & Asia                               | 0.01(0.1)     | 1.22(0.27)                  | 0.09   | Not reported | 1                 | 33.0(0.0)               |
|  |               |                             |  | Reported     | 1                 | 48.0(0.0)               |
| North America, Europe & Asia                                       | 0.1(0.3)      | 5.58(0.02)**                | 0.49   | Not reported | 21                | 34.0(23.8)              |
|  |               |                             |  | Reported     | 0                 | -                       |
| North & South America, Asia & Africa                               | 0.0(0.1)      | 0.73(0.39)                  | 0.09   | Not reported | 3                 | 43.3(28.0)              |
|  |               |                             |  | Reported     | 0                 | -                       |
| North & South America Asia Europe & Australia                      | 0.0(0.1)      | 0.49(0.49)                  | 0.06   | Not reported | 2                 | 37.0(33.9)              |
|  |               |                             |  | Reported     | 0                 | -                       |
| North America & Asia   | 0.0(0.1)      | 0.49(0.49)                  | 0.09   | Not reported | 2                 | 67.5(2.1)               |
|  |               |                             |  | Reported     | 0                 | -                       |
| New Zealand & Europe   | 0.0(0.1)      | 0.24(0.62)                  | 0.14   | Not reported | 1                 | 27.0(0.0)               |
|  |               |                             |  | Reported     | 0                 | -                       |
| Australia & New Zealand  | 0.0(0.1)      | 0.24(0.62)                  | 0.14   | Not reported | 1                 | 20.0(0.0)               |
|  |               |                             |  | Reported     | 0                 | -                       |
| North & South America & Asia                                       | 0.0(0.1)      | 0.24(0.62)                  | 0.14   | Not reported | 1                 | 25.0(0.0)               |
|  |               |                             |  | Reported     | 0                 | -                       |
| Africa, Europe & Asia  | 0.0(0.1)      | 0.24(0.62)                  | 0.14   | Not reported | 1                 | 18.0(0.0)               |
|  |               |                             |  | Reported     | 0                 | -                       |
| North America, Asia, Europe & Australia                            | 0.1(0.1)      | 0.24(0.62)                  | 0.14   | Not reported | 1                 | 28.0(0.0)               |
|  |               |                             |  | Reported     | 0                 | -                       |
| North America Europe Asia Australia New Zealand & Middle East      | 0.1(0.1)      | 0.24(0.62)                  | 0.14   | Not reported | 1                 | 10.0(0.0)               |
|  |               |                             |  | Reported     | 0                 | -                       |
| North and South America Asia Africa Europe Australia & Middle East | 0.0(0.1)      | 0.24(0.62)                  | 0.14   | Not reported | 1                 | 23.0(0.0)               |
|  |               |                             |  | Reported     | 0                 | -                       |
| Australia & Europe   | 0.0(0.1)      | 8.41(0.00)***               | 0.57   | Not reported | 0                 | -                       |
|  |               |                             |  | Reported     | 2                 | 34.5(4.9)               |
| Australia, New Zealand & Asia                                      | 0.1(0.1)      | 4.19(0.04)**                | 0.12   | Not reported | 0                 | -                       |
|  |               |                             |  | Reported     | 1                 | 40.0(0.0)               |
| North America Europe Asia & Middle East                            | 0.0(0.1)      | 4.19(0.04)**                | 0.21   | Not reported | 0                 | -                       |
|  |               |                             |  | Reported     | 1                 | 45.0(0.0)               |

Notes:

<sup>1</sup>For studies that reported or not reported incentives for continents surveyed.<sup>2</sup>The Fisher's exact test were undertaken to confirm the obtained results.<sup>3</sup>Following the work of Brock (2003), a post hoc statistical power analysis was calculated using G\*Power developed by Faul et al., (2007, 2009) and available from <http://www.psych.uni-duesseldorf.de/abteilungen/aap/gpower3/>.  $\alpha = 0.05$ <sup>4</sup>See Table 1 for Sample's characteristics.<sup>5</sup> $t = 1.83$ . When  $H_1 = 0$  then  $\Pr(|T| > |t|) = 0.07$ . However, when  $H_1 > 0$  then  $\Pr(T > t) = 0.04$ .\*\*\* $p < .01$ ; \*\*  $p < .05$

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