

*Negotiation Practices in Japan: An update on the Bubble Era*

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**Abstract**

The subject of negotiation practices and preferences by culture continues to attract academics and business practitioners around the world. In the case of Japan, however, little data has been collected since the Bubble Era. Although Japan, bolstered by Abenomics, is regaining vogue as a place of interest for business as well as academic research, textbooks and academic articles may rely on 20-30 year old data. This research updates the knowledge about intra-cultural business negotiation practices in Japan. As data about Japan, Japanese business practitioners and academics as well as overseas practitioners doing business in Japan and those academics with a focus on Japanese business will be interested. This original research includes quantitative and qualitative inputs of 80 Japanese managers.

**Keywords:** Business negotiation; Japan; cross cultural; business practices

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## **Introduction**

The information available about business negotiation practices in Japan is in need of an update.

This realization and the impetus for this empirical look at the lay of the land came from an academic conference in Kyoto in February 2013 on Japanese business. One of the presenters, a Japanese business professor, delivered a talk on Japanese business negotiation. Yet his frameworks and data were all received from the 1990s and even 1980s; no new data. That display led the author to review the literature on the subject, which showed that very little recent research had been done.

## **Literature review and study questions**

The prevailing ideas about business practices in Japan date back to the Bubble Era (generally considered as the mid-1980s to 1992) and post Bubble years with the flow of research slowing almost to a stop in the late 1990s. Some publications even reach back to aging data, a case in point, Adair, Weingart, and Brett (2007) use data from Adair, Brett, & Okumura (2001) the data for which was developed in the late 1990s. The 2012 work by DeMente lacks freshness and despite the title, is largely based on his previous (1994 and 2004) works.

Even the genre of guides to Doing Business in Japan falls off post bubble. Among the few recent titles Picken (2007) stands out for content on discourse and practice in intercultural interactions with Japanese businesspeople and some points about intracultural behaviors. In another fairly recent contribution, Yamauchi and Orr (2007), point out that Japanese negotiation reality does not match up with the “popular lore” of Doing Business guides and magazine articles. Their article however does not go beyond pointing out the gap between reality and current stereotypes, and offers no empirical evidence other than the experience of the authors. A significant and very recent contribution comes from Haghirian (2010) whose experiences as employee, academic, and consultant bring a welcome update to the conversation.

Yet most of the above works focus on cross cultural interactions. Although we can glean hints from these works about Japanese interactions with Japanese, there is a resounding lack of content on this intracultural topic.

With the golden age of business research on Japan long gone, the current research undertakes an update survey as a first step toward discovering what Japanese businesspeople do and expect in intra-cultural business negotiations.

We must recognize that any given culture is a moving target which is subject to dynamic, non-linear change (Browaeys & Price, 2011; Deardorff, 2006), even if slow (Schwartz, 2006). Knowledge about Japanese business culture created in the 1990s may have transformed or crumbled in the intervening decade or two. A new baseline needs to be established. Transformations may in business culture have occurred over the "Lost Decades" approximately 1992-2012 during which the face of business changed drastically. Some examples of changes in the environment and structure of Japanese business include reforms in cross holding; breakup of the bank keiretsu; key tainted foods scandals (SnowBrand, Fujiya, Akafuku, and others); corporate

governance scandals (including Olympus, Daio Paper, and others); decrease in permanent *seishain* (正社員) employees (Ono, 2010); drops in expense accounts according to the anecdotes of Japanese and foreign business practitioners; the Abenomics reforms, and so on. In short, Japan is in the midst of dynamic change in its business environment. This period of change begs the asking of whether Japanese business behaviors have evolved as well. Re-establishing a baseline of expectations and behaviors of Japanese business practitioners is vital for making sense of the current environment. Therefore this study takes Japanese intracultural business negotiation practices as its focus.

The central questions of this research include:

- What behaviors do Japanese businesspeople use in real business negotiations with other Japanese businesspeople?

This empirical research seeks to answer those questions through a survey of Japanese business actors with roles in decision making and deal making.

### **Survey Development**

The 26 items on the survey instrument regarding negotiation practices were selected based on the content of relatively recent publications and interactions by the author with Japanese business people in formal interviews and informal conversations. Publications dating to the Bubble Era and the years immediately following, up to the mid-1990s, were reviewed, but not specifically used in construction of the survey. Key older texts include Hall and Hall (1987) and Graham (1993). The oldest source used directly in development of the survey was (Nishiyama, 2000).

Haghirian (2010) discusses current business and management practices touching on some negotiation issues. Her work draws from her own recent experiences in the Tokyo business world and is up to date. She notes the tendency toward teams that would be considered large in the Western business world as well as a preference for very deep investigation into potential partners. Like most of the academic and business observers and survey participants, she also notes the formal seating choices that are common in Japan. Her work provides a list of expectations for non-Japanese interacting with Japanese, however she does not directly reveal how Japanese interact intraculturally.

Yotsukura (2003) reveals verbalizations and discourse found in negotiations among Japanese participants. One of the practices identified is the highly repetitive cycle of confirmation between parties. A simple confirmation by telephone of a changed shipping date required approximately 40 back and forth utterances by the two parties. The focus of this work is on discourse and does not clarify tactics and behaviors intended to claim or create value. Nonetheless, this source provide limited input for the current research being based on data collected in the late 1990s and the analysis is limited to discourse, touching only briefly on business negotiation.

DeMente (2004) repeatedly mentions the seemingly hidden nature of decision makers, specialists in his work. Furthermore, he identifies a strong tendency to hide intent until that of the other parties has been revealed. A major thesis of this work is that

brash Westerners misread polite interest as a strong relationship, and minor actors as decision makers, while mistiming their concessions only to be surprised at the end. These points are in the context of Japanese-foreign business negotiations. The content as presented appears to have been up to date in 2004.

Some items were added from the academic literature about negotiation but not about Japan. These were included in order to allow identification of behaviors not widely associated with Japan.

### **Inclusion of certain survey items**

*Team size:* The relatively large size of teams is mentioned in the context of cross cultural business interactions by Nishiyama (1999), Alston & Takei (2005), and Haghirian (pg. 132, 2010). However only Haghirian discusses this in terms of business negotiation. No sources were found indicating this as a problematic issue in Japanese-Japanese business interactions.

*Deep investigation:* DeMente (pg 228, 2004), Haghirian (pg. 128, 2010), and Nishiyama (pg. 93, 1999) identify this behavior specifically as a staple of negotiation preparation. They find that Japanese businesses usually expend significant energy on investigating non-Japanese business partners.

*Lies:* Several sources identified a perception among non-Japanese businesspeople that mistruths are commonplace in dealings with Japanese. Nishiyama (1999), Picken (2007) and other sources make it clear that this may occur where facts are too embarrassing to admit. While misrepresentation of facts may be widespread in many parts of the world, it has become a hot button issue to non-Japanese.

Other topics, see table below, arose from academic writing on negotiation in contexts not specific to Japan. These include new value creation, perceived status of women, formal seating and so on.

*Table 1 Sources for development of the survey*

<b>Number</b>	<b>As the item appeared on the survey in Japanese</b>	<b>English (not appearing on survey)</b>	<b>Source</b>
1	妥協	Compromise	DeMente (pg. 78, 2004)
2	協力	Collaboration	DeMente (pg. 78, 2004)
3	討論、言い争い	Haggling	Author and other
4	金額交渉をする場合、最初の言い値を思い切り安く（または高く）提示する	Anchoring	Alston & Takei (pg. 122, 2005)
5	嘘、偽り	Lies	DeMente (2004) suggests various types of obfuscations are in play;

			Nishiyama (1999) finds deceits in situations where no alternatives have been prepared; Picken (2007)
6	3人以上のチーム	Teams with more than three members	Alston & Takei (2005); Haghirian (pg. 132, 2010); Nishiyama (1999);
7	情報シェアが簡単に 行える環境	Easy sharing of information	Avoid sharing of information DeMente, 2004; Alston & Takei, 2005; Nishiyama, 1999. Exchange info by implication through complex offers (Imai and Gelfand, 2010).
8	新たな価値を求める	New value creation	Author and other
9	肯定的感情が強い	Strong positive emotions	May show passion, DeMente (pg. 173, 2004);
10	否定的感情が強い	Strong negative emotions	Should not be expressed Alston & Takei, 2005; Nishiyama, 1999
11	所定労働時間内で意義のある進展がある	Substantive progress made after normal work hours	Alston & Takei (pp 112, 122, 2005); Nishiyama (pg 94, 1999)
12	ダイレクトかつ論理的に商談を行う	Direct (linear) logic in use	Circular processes (DeMente, 2004);
13	遠回し、間接的な商談手法をとる	Indirect (non-linear) logic in use	Alston & Takei (pg 140, 2005); Nishiyama (pg 98, 1999). Iterative confirmation process Yotsukura (2003); Haghirian (pg. 133, 2010)
14	チーム内に女性がいれば高い敬意を払う	High respect for women if in the team	Author and other
15	商談の決定権をもつ上司がその場の商談にいない場合は、部下が指揮をとり意思決定を行う	Junior staff lead discussion but decision maker remains in background	DeMente (pg. 291, 2004); Alston & Takei (pg 125, 2005); Nishiyama (126, 1999)
16	返信、返答が1ヶ月以上時間を要する	Gaps longer than 1 month between responses	Author and other
17	会計年度末前は急い	Rush to complete before the end of	Author and other

	で商談を終わらせる	the financial year	
18	商談前の相手側企業に関する事前調査は綿密に行う	Deep investigation prior to negotiations	DeMente (pg 228, 2004); Haghirian (pg. 128, 2010); Nishiyama (pg. 93, 1999)
19	脅しや脅迫による商談	Threats	Alston & Takei (2005) state that even the mildest threats should never be made.
20	契約合意後に割引や特別待遇の要請を行う	Requests for discounts or special conditions after agreement has been reached	Nishiyama (pg 104, 1999);
21	最終意思決定者が明確ではない	Hidden decision maker	Alston & Takei (pg 125, 2005); DeMente (pg 171, 176, 288, 299, 2004); Nishiyama (pg 126, 1999)
22	意表をつく	Surprises, shocks	DeMente (pg 78, 102, 173 2004); Nishiyama (pg 104, 1999); Author
23	義理や人情といった心理的な感情から譲渡につなげる	Naniwabushi used in order to get concessions	Alston & Takei (pg 106, 2005); DeMente (pg 78, 2004); Nishiyama (pg 95, 96, 1999)
24	地位の上下関係によって決まる	Seating by rank	Alston & Takei (pg 85, 2005); DeMente (pg 171, 176, 2004); Haghirian (pg. 132, 2010)
25	提議に関する返答が口頭で行われない	No verbal response to a proposal	Alston & Takei (2005); Author
26	公式な商談での座席配列は年功または	Formal seating order by seniority or importance	Alston & Takei (pg 85, 2005); DeMente (pg 171, 176, 2004); Haghirian (pg. 132, 2010);

The above table shows the sources from which questions were developed. Few of these sources specifically address intra-cultural, i.e. Japanese-Japanese negotiations, though most of the authors have witnessed intra-cultural Japanese interactions. As noted in the table, some questions were developed by the author in response to personal experience in Japan or issues in negotiation studies around the world.

In addition to the 26 core behavior items, rank, business activity, and role in negotiations were captured. Gender was not included in the survey, though about five of the respondents are female.

Finally, free comments on the survey and the topic were possible and 32, or about one-third of the 90 respondents, left usable comments in Japanese or English.

## Methodology

The survey based on existing literature and discussions with Japanese and non-Japanese practitioners actively involved in Japanese business. Not all the possible behaviors identified in the literature were included in the survey. One reason for exclusion was the lack of evidence for them found during formal and informal interviews with Japanese business practitioners. Another reason for exclusion from the survey instrument was size. The final survey included some 26 items taking up to 20 minutes to complete. It was piloted with two Japanese managers who provided comments for improvement.

To gather survey responses, 249 emails sent inviting individuals to participate. The emails were culled from business directories, mailing lists, and business cards. Additionally 186 "In Mails" were sent through the LinkedIn social networking service, including 43 from the author's own network. The total outreach sample was 478 managers, selected manually for senior management.

Total valid responses reached 90, or a 19% response rate. Approximately 5% of those contacted through business directories responded. The rough rate of response through LinkedIn was 30%. The approximate rate of response through the author's personal network was 30%. Of the 90 respondents, 10 were removed from statistical analysis because they did not report their managerial rank.

The following table shows the composition of respondents based on their managerial rank after removal of those who reported no rank.

*Table 2 Stratification after removal of respondents with no reported rank*

Share of total (80 individuals)	Category	Sample Titles	Dummy value
46% (37 individuals)	Top strategy setting	CEO, President, 会長, 社長, 取締役, 代表取締役, 代表,	4
9% (7 individuals)	C-level decision makers	COO, 執行役員, 役員, 常務執行役員	3
14% (11 individuals)	Senior executives	Vice President, Legal Counsel, 本部長, ディレクター, パートナー	2
31% (25 individuals)	Middle and Low level managers	次長, 営業部長, 事業部長, 課長, 部長, 副部長, マネージャー, 購買マネージャー, Sales manager	1

The four levels of rank in the table above were represented in the database with the dummy values one through four, with four indicating top decision making capacity, i.e CEO, president, executive board member or similar.

Of the 80 respondents, 70 provided sufficient information to identify their role in negotiation. These were divided into four categories, as shown in the table below.

*Table 3 Respondents by negotiation role*

<b>Share of total (70 individuals)</b>	<b>Role in negotiation</b>	<b>Dummy value</b>
57% (40 individuals)	Final decision maker (current or previous)	4
25% (18 individuals)	Leading role, but not final decision maker	3
14% (10 individuals)	Team member	2
3% (2 individuals)	Other supporting role	1

## **Findings**

Certain items that appear in the survey were clearly confirmed or rejected by the survey participants. Other items were confirmed with less unanimity and uniformity than the sources suggested would be the case. These are discussed below

*Table 4 Confirmation of behaviors in intra-cultural Japanese business negotiation*

<b>Number</b>	<b>In use: Yes, No, Middle</b>	<b>Percent respondents <i>always or often</i> seeing this in business negotiations.</b>	<b>Comment</b>
1	Y	87	In play
2	Y	89	In play
3	M	23	Uncommon
4	Y	52	Not always in use
5	N	18	Rarely in play
6	Y	85	In play
7	Y	71	In play
8	Y	80	In play
9	Y	82	In play
10	M	49	Not always in use
11	Y	59	Not always in use
12	Y	56	Not always in use
13	Y	100	In play
14	M	46	Not always in use



15	M	21	Uncommon
16	Y	50	Not always in use
17	Y	62	In play
18	Y	64	In play
19	N	0	Extinct
20	M	35	Not always in use
21	Y	71	In play
22	N	12	Rarely in play
23	Y	62	In play
24	Y	68	In play
25	Y	57	Not always in use
26	Y	89	In play

Data with dummy values is presented in Appendix 1. Correlations are not included. For clarification of values, please contact the author.

Behaviors identified as always or often in negotiations by more than 60% of respondents are considered to be currently "in play" in Japanese-Japanese business negotiations. These behaviors are likely to be encountered.

Behaviors identified as always or often in negotiations by 21-49% of respondents are considered to be currently "in play" though not reliably or frequently in use in Japanese-Japanese business negotiations. These behaviors may be encountered.

Behaviors identified as always or often in negotiations by less than 20% of respondents are considered to be "rarely in play". These behaviors may not be encountered.

Behaviors identified as always or often in negotiations by 0% of respondents are considered to be "extinct". These behaviors will most probably not be encountered.

### **Correlational statistics**

Correlation of negotiation behaviors with rank and role were examined. Rank in the company and role in negotiation were given dummy values and compared to the frequency or infrequency of behaviors in the survey. Rank in the company was rated from one to four with four being highest rank, i.e. CEO, chairman of the board and so on. Role in negotiation was determined from the brief comments provided in this field and scored from one to four with four indicating final decision making authority. Only one correlation was stronger than 0.2, namely the correlation between rank and observing teams larger than three people (correlation 0.248). No strong or even medium correlations were identified.

The lack of correlation between rank and role combined with the relatively uniform responses to survey questions, despite diversity, suggests that Japanese business negotiators have remarkably similar experiences as shown in the table below by the low variance among responses for the survey questions.

## **Discussion**

This discussion will touch on selected results of the survey.

Info sharing (question 7): Apparently occurs on a widespread level in intra-cultural situations. Non-Japanese Academic and business writers have found Japanese businesspeople to be less than forthcoming, the reasons may lie in conflicting procedure schema (Nishida, 1999), in different practices to establish relationships such as exchanging favors rather than information, or other cross cultural conflicts.

Slow responses, silences (questions 16 and 25): Whereas the non-Japanese authors viewed gaps and silences in the communication flow as an unsettling bargaining tactic (Graham, 1993; Hall & Hall, 1987). Alston and Takei (2005) identified silences during conversation as a tactic. However, the prevalence of gaps and silences in communication were found to be fairly uncommon, that is not always in use, by the Japanese respondents.

Threats (question 19): According to the responses, this behavior must be all but extinct in Japan's business world.

Surprises (question 22): Nishiyama (1999) and DeMente (2004) identify situations where key information or changes are proposed by the Japanese side in cross cultural negotiations. These two sources identify this as frequent and difficult to navigate for non-Japanese. However, the current survey reported a very low incidence of “surprises”. It could be that non- Japanese interpret some incidents as surprise, whereas more sensitive Japanese practitioners detect a “surprise” in advance, making it less of a surprise. This ability is suggested by Hall and Hall (1987), as an outgrowth of high context communication skills and by Imai and Gelfand (2010), due to matching schemata about negotiation.

In summary, the findings from these 80 respondents, half of whom are the top decision makers in their organization, confound some widely held impressions about Japanese business behavior.

How are we to understand these gaps?

One possibility is that the behavior of Japanese to other Japanese is strongly different than their behavior when interacting with non-Japanese.

Another possibility is that Japanese and non-Japanese business people, particularly the North Americans and Europeans who usually make up the populations of academic studies, have very different ideas and schemata about concepts such as lies, strong emotion, silence, logic style, and so on.

## **Limitations**

The current study acknowledges limitations including a lack of information about the sector and activity of the businesses represented among the respondents. Further, the role of the respondent in negotiations is not always clear and some responses were

excluded for this reason. Future surveys will need to identify negotiator role more clearly.

Not all possible behaviors could be included on the survey. An improved version would allow participants to add behaviors they found frequently or which had become less common.

### **Next steps**

A key future questions for researchers on Japan is whether Japanese practitioners exchange information on negotiation within the company and/or among other negotiation practitioners in other companies? Future work should attempt to identify the presence, absence, or potential to develop Communities of Practice as described by (Wenger, 2004).

Another questions is whether Japanese business negotiators create value in ways that are innovative or different or more successful than non-Japanese do?

Further research remains to be done.

## References

- Adair, W., Brett, J. M., & Okumura, T. (2001). Negotiation Behavior When Cultures Collide: The United States and Japan. *Journal of Applied Psychology, 86*(3), 371–385
- Adair, W. L., Weingart, L., & Brett, J. (2007). The timing and function of offers in U.S. and Japanese negotiations. *The Journal of Applied Psychology, 92*(4), 1056–68. doi:10.1037/0021-9010.92.4.1056
- Alston, J. P., & Takei, I. (2005). *Japanese business culture and practices: A guide to twenty-first century Japanese business*. New York, NY: iUniverse
- Browaeyns, M. J., & Price, R. (2011). *Understanding Cross-Cultural Management* (2nd ed., p. 432). Essex, UK: Prentice Hall.
- Deardorff, D. K. (2006). Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization. *Journal of Studies in International Education, 10*(3), 241–266. doi:10.1177/1028315306287002
- DeMente, B. L. (2004). *Japan's cultural code words*. Tokyo: Tuttle
- DeMente, B. L. (2012). *Japan: Understanding & Dealing with the New Japanese Way of Doing Business*. CreateSpace Independent Publishing Platform.
- Graham, J. (1993). The Japanese negotiation style: Characteristics of a distinct approach. *Negotiation Journal, (April)*, 123–140
- Haghirian, P. (2010). *Understanding Japanese management practices* (p. 160). New York, NY: Business Expert Press.
- Hall, E., & Hall, M. R. (1987). *Hidden differences: Doing business with the Japanese* (p. 172). New York, NY: Anchor Books
- Imai, L., & Gelfand, M. J. (2010). The culturally intelligent negotiator: The impact of cultural intelligence (CQ) on negotiation sequences and outcomes. *Organizational Behavior and Human Decision Processes, 112*(2), 83–98  
doi:10.1016/j.obhdp.2010.02.001
- Nishida, H. (1999). A Cognitive Approach To Intercultural Communication Based On Schema Theory: What Are Schemas? *International Journal Intercultural Relations, 23*(5), 753–777
- Nishiyama, K. (2000). *Doing business with Japan: Successful strategies for intercultural communication*. Honolulu: University of Hawaii Press
- Ono, H. (2010). Lifetime employment in Japan: Concepts and measurements. *Journal of the Japanese and International Economies, 24*(1), 1–27  
doi:10.1016/j.jjie.2009.11.003

Picken, S. D. . (2007). *The A to Z of Japanese Business* (p. 448). Lanham, MD: Scarecrow Press

Schwartz, S. H. (2006). A Theory of Cultural Value Orientations: Explication and Applications, 5(921)

Wenger, E. (2004). Knowledge management as a doughnut: Shaping your knowledge strategy through communities of practice. *Ivey Business Journal*, (519)

Yotsukura, L. (2003). *Negotiating moves* (p. 370). Morristown, NJ: Elsevier

## Appendix I

Data with dummy values I

Timestamp	Number	Rank	Role	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
07/25/2014	1	1	3	2	2	3	2	4	2	3	2	2
07/24/2014	2	4	2	2	2	3	3	3	2	2	2	2
07/22/2014	3	4	4	2	1	3	3	3	2	2	2	2
07/20/2014	4	1	4	1	1	1	3	4	1	2	3	2
07/19/2014	5	2	2	2	1	3	2	4	2	1	2	1
07/17/2014	6	4	4	2	1	3	4	4	2	3	3	2
07/17/2014	7	2	3	1	1	4	3	4	2	1	3	2
07/16/2014	8	4	2	2	1	3	2	4	2	2	1	3
07/16/2014	9	4	4	2	2	3	2	2	2	3	3	2
07/15/2014	10	4	4	2	1	3	3	3	2	2	1	1
07/14/2014	11	2	4	1	1	2	2	4	2	2	4	2
07/14/2014	12	2	4	1	1	1	1	3	2	2	1	2
07/14/2014	13	3	4	1	2	4	3	3	3	2	3	1
07/10/2014	14	1	3	3	2	2	1	2	1	2	3	3
07/06/2014	15	1	4	2	2	3	1	3	2	1	1	2
07/03/2014	16	1	1	2	2	4	2	3	2	3	3	2
07/02/2014	17	3	0	2	1	3	2	4	1	3	1	1
07/02/2014	18	2	3	2	2	3	2	2	3	2	2	2
07/01/2014	19	3	4	1	3	4	2	2	3	3	1	3
06/30/2014	20	2	4	2	1	4	3	4	1	1	2	2
06/29/2014	21	1	4	3	1	4	2	3	3	2	1	2
06/29/2014	22	4	4	3	1	3	3	4	2	2	2	1
06/29/2014	23	1	2	2	2	2	2	0	2	2	2	2
06/28/2014	24	4	4	2	2	3	3	4	2	2	2	2
06/28/2014	25	0	NA	2	1	3	4	4	2	3	1	3
06/27/2014	26	1	2	2	3	3	3	3	3	2	3	2
06/27/2014	27	4	4	1	2	4	2	2	2	2	3	3
06/26/2014	28	1	4	1	2	4	3	3	2	4	2	1
06/26/2014	29	1	3	2	2	3	2	0	2	3	2	1
06/26/2014	30	2	0	2	2	3	4	4	1	2	1	2
06/25/2014	31	1	4	1	3	3	2	3	3	2	3	1
06/24/2014	32	4	2	2	2	1	1	3	3	3	2	3
06/24/2014	33	1	4	2	2	4	1	4	1	2	2	2
06/23/2014	34	4	4	1	1	3	2	2	2	3	2	3
06/18/2014	35	2	2	2	1	3	2	0	2	3	2	2
06/18/2014	36	1	0	2	2	3	3	4	1	2	2	2
06/16/2014	37	3	3	1	1	3	3	4	2	2	1	1
06/16/2014	38	4	3	2	2	3	3	1	2	3	1	1
06/15/2014	39	1	2	2	2	3	2	3	1	4	3	3
06/13/2014	40	4	3	1	1	3	2	2	1	3	3	2
06/13/2014	41	1	4	1	1	4	3	4	2	1	1	2

06/13/2014	42	0	NA	2	2	3	3	3	1	2	1	2
06/12/2014	43	2	3	2	3	2	3	2	2	2	3	3
05/30/2014	44	1	3	2	2	2	3	4	2	2	2	1
05/30/2014	45	1	1	4	1	4	2	4	1	2	1	1
05/30/2014	46	0	NA	2	1	3	2	3	1	1	2	2
02/22/2014	47	4	NA	2	1	2	3	2	2	2	1	2
02/19/2014	48	4	2	2	3	4	2	3	2	3	1	2
01/23/2014	49	4	4	2	1	3	3	4	2	2	2	1
01/20/2014	50	4	4	1	2	3	3	4	1	2	1	1
01/20/2014	51	4	2	2	1	3	3	0	5	2	1	0
01/17/2014	52	0	NA	2	1	2	4	4	1	1	1	2
01/16/2014	53	4	4	2	1	3	3	3	2	1	2	0
01/16/2014	54	4	4	2	2	3	3	4	2	3	2	2
01/15/2014	55	2	4	0	0	3	0	0	1	1	1	0
01/14/2014	56	4	4	3	2	3	1	4	1	3	4	3
01/10/2014	57	0	NA	4	0	4	4	4	2	1	0	2
01/10/2014	58	4	2	1	1	2	1	2	2	3	2	0
01/09/2014	59	4	4	1	3	3	2	2	3	3	2	3
01/09/2014	60	4	4	3	3	3	3	4	2	1	2	2
01/08/2014	61	4	4	2	1	3	2	3	1	2	2	1
01/06/2014	62	4	4	2	1	2	2	4	2	1	2	2
12/25/2013	63	3	0	2	2	2	3	4	1	3	2	1
12/24/2013	64	1	4	2	1	2	3	4	3	2	1	2
12/24/2013	65	4	4	2	1	2	3	4	2	2	2	2
12/24/2013	66	4	0	2	0	1	3	4	2	1	2	3
12/20/2013	67	4	4	2	2	4	2	3	1	2	1	2
12/20/2013	68	0	NA	2	2	3	3	3	1	3	2	0
12/19/2013	69	4	4	2	1	3	2	3	2	2	2	2
12/19/2013	70	1	0	2	1	4	4	4	2	1	2	2
12/18/2013	71	4	2	3	1	4	0	0	2	2	1	3
12/16/2013	72	4	4	2	0	4	3	4	2	1	1	1
12/13/2013	73	0	NA	1	3	3	1	2	2	3	1	2
12/03/2013	74	4	2	2	2	3	2	3	2	2	2	2
07/10/2013	75	2	2	2	1	2	4	3	2	2	1	1
07/09/2013	76	1	2	1	2	4	3	3	1	3	1	3
07/07/2013	77	1	2	2	3	0	2	3	0	2	2	0
07/05/2013	78	0	NA	3	1	0	2	4	2	3	3	3
07/05/2013	79	4	0	2	0	4	4	4	2	0	2	1
07/05/2013	80	4	4	2	1	3	2	0	3	1	2	1
07/05/2013	81	4	4	3	1	2	3	3	3	1	1	1
07/05/2013	82	3	4	1	2	3	1	3	2	2	2	2
07/05/2013	83	1	4	3	2	3	1	4	2	2	1	2
07/05/2013	84	3	0	2	1	4	1	3	2	2	2	2
07/02/2013	85	0	NA	2	1	2	1	3	1	1	2	1
06/25/2013	86	1	2	3	1	3	2	4	2	2	2	2

06/24/2013	87	1	0	2	1	0	2	0	2	2	3	2
06/21/2013	88	1	2	1	2	3	4	2	1	3	3	1
08/15/2014	89	0	NA	2	2	3	2	3	1	1	2	1
08/03/2014	90	4	4	2	2	2	2	4	2	2	2	2

Data with dummy values II

Number	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21
1	3	2	2	2	3	4	2	2	2	4	4	2
2	2	3	3	2	2	4	2	1	1	3	3	2
3	2	3	3	2	4	3	2	2	2	3	2	1
4	0	4	3	2	2	2	4	3	3	4	3	3
5	3	1	1	2	2	3	4	1	1	4	4	2
6	2	3	3	2	2	4	3	2	2	4	2	3
7	4	3	3	2	4	4	2	1	1	4	2	2
8	2	3	3	2	3	3	1	2	2	4	2	2
9	2	3	3	2	4	3	1	1	1	3	2	3
10	3	1	2	2	2	3	2	2	2	4	3	2
11	2	3	1	2	2	1	3	1	1	0	3	1
12	3	2	2	2	1	3	3	3	3	4	4	4
13	3	2	2	2	3	3	4	2	2	4	4	2
14	1	3	3	2	3	7	2	2	2	3	7	2
15	2	2	2	2	2	2	2	2	2	0	2	2
16	3	3	2	2	4	4	3	3	3	4	4	2
17	3	1	1	2	3	4	3	4	4	4	4	3
18	2	3	2	2	2	3	2	2	2	4	3	2
19	4	3	4	2	3	4	3	2	2	3	4	2
20	3	2	2	2	2	1	3	3	3	4	4	2
21	4	1	1	2	1	3	3	1	1	4	4	4
22	3	1	1	2	2	2	4	2	2	4	3	3
23	3	2	3	2	3	3	3	0	0	4	0	1
24	3	3	3	2	3	4	3	4	4	4	3	2
25	3	2	2	2	3	4	4	2	2	4	4	2
26	2	3	2	2	4	4	4	3	3	4	4	3
27	3	2	3	2	4	4	3	1	1	3	2	2
28	1	0	1	2	0	3	4	1	1	4	3	3
29	3	2	3	2	2	3	2	2	2	0	2	2
30	2	2	2	2	3	3	1	3	3	3	3	1
31	2	2	3	2	4	4	4	2	2	3	2	3
32	1	4	3	2	4	4	3	3	3	4	2	2
33	2	2	2	2	2	3	1	3	3	4	2	3
34	2	2	2	2	3	3	2	2	2	4	1	2
35	3	3	3	2	3	3	2	2	2	3	2	1
36	3	4	3	2	3	3	3	1	1	4	2	2
37	3	2	2	2	4	3	2	1	1	3	2	2



38	3	3	3	2	2	2	2	2	2	3	2	2
39	2	3	3	2	4	4	3	1	1	4	2	2
40	2	3	4	2	4	4	3	1	1	4	1	2
41	3	1	1	2	4	4	4	2	2	4	4	3
42	3	2	2	2	3	3	4	2	2	4	3	2
43	3	4	3	2	4	1	0	0	0	0	0	3
44	3	2	2	2	4	3	3	3	3	3	3	2
45	3	1	2	2	0	4	4	4	4	4	4	3
46	2	1	2	2	3	4	2	3	3	3	3	3
47	1	1	1	2	2	3	2	1	1	3	1	2
48	2	2	2	2	2	3	2	3	3	4	1	2
49	2	2	3	2	3	2	2	2	2	4	4	2
50	2	2	3	2	2	3	2	2	2	4	3	1
51	2	2	2	2	0	3	3	3	3	4	4	2
52	2	1	2	2	0	1	4	4	4	4	4	4
53	2	2	2	2	0	2	2	2	2	3	3	2
54	2	2	3	2	3	2	2	2	2	4	3	2
55	0	2	2	2	3	4	2	1	1	0	0	1
56	1	3	4	2	2	4	1	2	2	4	3	2
57	3	2	1	2	1	4	4	0	0	3	4	2
58	2	2	3	2	0	4	2	1	1	3	2	1
59	1	3	3	2	4	4	4	3	3	4	3	3
60	4	1	2	2	0	3	3	4	4	4	3	2
61	3	2	1	2	2	2	3	3	3	3	4	1
62	3	2	2	2	2	3	2	2	2	4	4	3
63	3	3	3	2	1	3	2	2	2	4	3	2
64	2	2	1	2	0	4	3	2	2	4	4	2
65	3	2	2	2	4	3	2	3	3	4	4	1
66	2	1	2	2	4	3	2	2	2	4	1	2
67	2	3	3	2	2	4	2	2	2	4	3	2
68	2	3	3	2	4	4	2	2	2	4	3	2
69	2	2	2	2	2	1	4	4	4	3	3	1
70	3	2	2	2	4	2	1	2	2	4	3	1
71	3	1	2	2	0	3	3	0	0	0	0	0
72	3	2	1	2	3	2	3	2	2	4	3	2
73	2	2	3	2	4	4	1	3	3	4	2	4
74	2	3	3	2	2	3	3	4	4	4	3	2
75	3	1	1	2	2	4	2	2	2	4	3	2
76	2	3	3	2	3	4	2	3	3	4	3	1
77	0	0	3	2	0	4	0	3	3	0	3	3
78	3	0	0	2	0	0	0	0	0	0	0	0
79	3	4	1	2	1	2	3	4	4	4	4	3
80	3	1	2	2	2	3	3	3	3	4	4	2
81	3	1	1	2	1	4	0	3	3	4	3	4
82	3	2	2	2	4	3	2	2	2	3	2	2

83	3	2	3	2	0	2	2	3	3	4	4	2
84	2	3	1	2	2	3	4	3	3	4	3	2
85	3	2	2	2	1	3	1	2	2	3	2	2
86	1	3	3	2	2	2	2	2	2	4	2	3
87	2	2	1	2	3	2	3	0	0	0	2	2
88	1	3	2	2	4	4	1	4	4	4	2	3
89	2	2	2	2	0	3	2	NA	2	4	3	2
90	4	3	1	2	2	3	3	3	1	4	4	3

Data with dummy values III

Number	Q22	Q23	Q24	Q25	Q26
1	3	2	4	2	3
2	3	2	2	2	1
3	3	2	1	2	1
4	4	3	3	2	1
5	2	3	2	3	1
6	3	2	2	3	1
7	4	3	3	2	1
8	4	2	2	2	1
9	3	2	2	2	1
10	3	3	2	2	1
11	2	3	2	2	1
12	3	3	1	3	1
13	3	2	2	2	1
14	4	5	1	2	1
15	3	2	4	3	2
16	4	2	2	2	2
17	2	3	1	3	1
18	3	1	3	2	2
19	4	2	4	3	3
20	3	3	3	4	2
21	4	3	4	4	1
22	4	4	3	3	2
23	4	3	1	4	1
24	4	3	3	4	3
25	4	2	2	3	2
26	3	3	3	3	3
27	2	2	1	2	1
28	4	0	0	2	1
29	3	2	1	2	1
30	3	2	2	2	1
31	2	2	2	4	1
32	4	3	2	1	1

33	3	2	4	2	3
34	3	2	2	3	1
35	3	1	1	3	1
36	3	2	2	2	1
37	3	2	2	2	1
38	3	2	2	1	1
39	4	4	2	0	0
40	4	2	2	2	1
41	3	4	2	2	2
42	3	4	2	3	2
43	3	1	1	2	1
44	3	2	2	2	1
45	4	4	4	4	4
46	3	2	4	3	3
47	2	2	3	3	1
48	4	2	1	2	1
49	4	2	1	3	1
50	3	1	1	3	1
51	3	3	2	2	1
52	4	4	2	4	2
53	0	3	1	2	1
54	4	2	2	2	1
55	3	3	3	1	1
56	3	2	3	3	2
57	4	2	2	2	2
58	2	1	1	3	1
59	4	3	4	3	4
60	4	4	1	3	3
61	3	2	1	3	1
62	3	2	3	3	2
63	3	2	2	4	1
64	2	3	4	3	1
65	3	2	4	3	1
66	3	2	2	4	1
67	3	3	1	2	1
68	3	2	2	2	1
69	4	2	2	2	2
70	3	3	1	2	1
71	0	0	0	3	1
72	3	2	1	2	1
73	2	3	1	1	1
74	4	3	2	2	1
75	3	2	4	2	1
76	4	2	1	2	1
77	4	2	2	0	1

78	0	0	0	0	0
79	3	2	4	0	1
80	2	3	3	2	1
81	3	4	0	1	2
82	3	2	2	2	1
83	3	2	2	3	1
84	3	3	2	2	2
85	2	1	1	3	1
86	3	2	2	2	1
87	3	2	3	3	2
88	3	3	4	1	1
89	2	2	NA	2	2
90	4	2	2	4	1