Future Parameter Explains Job Satisfaction and Turnover Candidates in Japanese Companies

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Abstract: Do members of Japanese companies behave according to Takahashi’s (1996a, 2013b) leaning on future principle? This paper attempts to directly validate this, focusing on organization members’ decision to participate, that is, whether organization members continue to participate in the organization or leave the organization, and to clarify the underlying reasons behind the decision to participate from the viewpoint of the future parameter. This paper adopts Takahashi’s (1996a) “perspective index” as a future parameter. Using data from the JPC Survey, an annual survey of around 9,000 people taken from 1992 to 2000, the perspective index can adequately explain job satisfaction and turnover candidates: Near-perfect linearity between perspective index and job satisfaction ratio/turnover candidate ratio. This paper also shows that as the perspective index rises, the correlation between job satisfaction and turnover candidates disappears. Only when the future parameter remains at a low level, we can observe the correlation between job satisfaction and turnover candidates in Japanese companies.

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A part of this paper was originally published as Takahashi (1996a) in Japanese and a summarized Japanese version was included in Takahashi, Ohkawa, and Inamizu (2009).
1. Introduction

March and Simon (1958) calls the decision to continue in or to leave an organization the “decision to participate.” However, the “decision to exit” could be a better term, since it involves the decision “whether or not to continue participating in an organization in which one is already participating” rather than the decision “whether or not to begin participating in a new organization.” Vroom (1964) reviewed 20 studies on the correlation between job satisfaction and job performance, based on Brayfield and Crockett’s (1955) literature review. Although Vroom questions the correlation between job satisfaction and productivity, he concludes that there is a consistent negative correlation between job satisfaction and job turnover/absences. In short, there is a link between job dissatisfaction and the decision to participate (in this case, job turnover and absences) in the United States.

Let us now examine the situation in Japan, using the following two questions.

Q1. Are you satisfied with your job?  1 = yes, 0 = no.
Q2. If given the chance, would you like to change jobs?  1 = yes, 0 = no.

This paper incorporates the data used by Takahashi (2013a), taken from the JPC Survey from 1992 to 2000. Details on the survey methods are given in Takahashi (1997). The 1992–2000 JPC Survey was a comprehensive survey with more than 50 questions, including questions for other purposes as well. Takahashi (1996a, 1997,
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had a response rate of 89.4%, of which 9,156 questionnaires were collected from the 10,242 distributed. Of the respondents, 77.3% were male and 19.1% were managers. The average age of respondents was 36.6 years. The job satisfaction ratio is the ratio of respondents who answered “yes” to Q1, while the turnover candidate ratio is the ratio of respondents who answered “yes” to Q2. The overall job satisfaction ratio was 48.4% and the overall turnover candidate ratio was 49.7%, both just under 50%.

Table 1 shows a cross table of Q1 and Q2 from the 1992–2000 JPC Survey data. There is a significant negative correlation between job satisfaction and turnover candidates. Among the people who are satisfied with their jobs, 63.4% are not thinking changing jobs, while 62.0% of those not satisfied with their jobs are thinking of changing jobs.

Table 1. Job satisfaction and turnover candidates (1992–2000 JPC Survey)

<table>
<thead>
<tr>
<th>Q1. Are you satisfied with your job?</th>
<th>Q2. If given the chance, would you like to change jobs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
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Note: Cramer’s V = -0.254 ($\chi^2 = 582.81, p < 0.001$)

2002, 2013a) and Ando (2002), for example, also base their analyses on the JPC Survey data.

2 When dealing with job satisfaction as a pluralistic concept, not all researchers necessarily agree on the elements (Sakashita, 1985). Furthermore, when defining job satisfaction as a composite variable, the more questions contained in the composite variable “job satisfaction” (dependent variable), the more effectively they might overlap with the questions of independent variables, thereby falling into a tautology. This paper therefore simply expresses job satisfaction directly from Q1 alone.
2. Future Parameter

It is at least possible to explain job satisfaction and turnover candidates in Japanese companies using Takahashi’s (2013b) future parameter. For example, American institutional investors, who tend not to hold interest in the long-term soundness and growth of individual companies, ask for immediate shareholder returns over retaining profits for company and group growth. By contrast, the strong future-orientation of Japanese companies means that they are tight-fisted when it comes to paying salaries and dividends. Even if they do not elaborate on the reinvestment, they retain profits as internal reserves for investing into future expansion. Takahashi (1996a, 1996b) proposes a decision principle called the leaning on future principle to express this behavior by Japanese companies. The leaning on future principle is a principle along which people choose a better future rather than act through present mercenary motives based on the past results.

As portrayed in Aesop’s fable of “The Ant and the Grasshopper,” this is a competition between the momentary system of living for the moment, seeking immediate fulfillment and pleasure, and the future-oriented system of thinking 10, 20 or more years ahead, enduring the present and saving for the future. Even if the momentary system has a period of short-term high performance, after several decades, only the future-oriented system will survive. This is also seen in Axelrod’s (1980a, 1980b, 1984) round-robin league match between computer programs.

In Axelrod’s (1980b)\(^3\) second computer tournament, at each move,
the next move will be played with probability $w$ or will end in that move with probability $1-w$. This probability $w$ is the “weight” of the next move (future) compared with the current move (present). Takahashi (2013b) calls this probability $w$ the future parameter. If $w$ is any less than 1, it functions as a discount rate and small $w$ fosters a short-term oriented system of living only for the moment.

For example, Takahashi (2013b) points out that even in the 1990s, Japanese companies hardly used the discount rate method of valuation for investment decisions, while the United States had rapidly adopted the discount rate from the 1960s onwards (Kim & Farragher, 1981; Klammer, 1972). It is not that Japanese companies give little consideration to discount rates; their future parameter is high enough not to discount future. If the future parameter $w = 1$, the divergence of the expected profit rules out makes nonsense of discount rate methods such as NPV (net present value) when making investment decisions. If $w$ is any less than 1, no matter how large profits may be after 10 or 20 years, multiplying $w^{10}$ or $w^{20}$ will only result in zero. Despite holding out for long-term profits and ignoring distant-future profits, near-future profit alone, in effect, determines “long-term profits.”

Studies repeatedly noted similar phenomena in Japanese management. Realizing that the probability $1-w$ is a special case of the stopping rule in the sequential decision process model (DeGroot, 1970; Ferguson, 1967), Abegglen’s “lifetime commitment” that “the company will not release him even temporarily except in the most extreme circumstances. He will not quit the company for industrial employment elsewhere” (Abegglen, 1958, p.11) is a representation of future parameter $w \approx 1$. In this situation, cooperation can easily occur even between mutual enemies (Axelrod, 1984). For instance, this phenomenon is observed in the cooperation between capital and mutual cooperation (Rapoport & Chammah, 1965)
labor in Japanese companies.

3. Perspective Index

Let us now attempt to directly validate Takahashi’s (1996a, 1996b) idea that members of Japanese companies behave according to the leaning on future principle. To do this, we focus on organization members’ decision to participate, that is, whether organization members continue to participate in the organization or leave the organization, and to clarify the underlying reasons behind the decision to participate from the viewpoint of the future parameter.

We use Takahashi’s (1996a) *perspective index* as a type of future parameter, which was developed in 1992 and validated by the JPC Survey data. The perspective index is defined as the sum of scores of the following five questions designated as dummy variables.

P1. Are you able to see the desirable shape which your company will take in the 21st century? 1 = yes, 0 = no.
P2. Are most of your work hours spent on routine tasks? 0 = yes, 1 = no.
P3. Are your job targets clearly specified by your superiors? 1 = yes, 0 = no.
P4. Does your company have an atmosphere in which reaching the short-range norm tends to have priority over pursuing long-range goals? 0 = yes, no = 1.
P5. Can you visualize a positive future for yourself ten years from now staying at this company? 1 = yes, 0 = no.

The answers to these questions are in “yes” or “no” format. Responding “yes” to questions P1, P3, and P5 and “no” to questions P2 and P4 is deemed to have a high future parameter. Thus, “yes” to questions P1, P3, and P5 scores 1 point per question while “no” scores 0 points; “no” to questions P2 and P4 scores 1 point per
question while “yes” scores 0 points. The high perspective index indicates the high future parameter within an organization. As a definition, the perspective index is scored as an integer value from 0 to 5.

4. Tests on the Perspective Index

Let us divide the data into six perspective index groups (perspective index = 0, perspective index = 1,…, perspective index = 5) to calculate the job satisfaction and turnover candidate ratios for each group, and to examine the relationship between the perspective index and the two ratios, shown in Figure 1 and Figure 2. These figures show a near-perfect linear relationship, with the job satisfaction ratio increasing and the turnover candidate ratio decreasing as the perspective index rises. The respective coefficients of determination

\[ y = 0.1312x + 0.1794 \]

\[ R^2 = 0.9992 \]

**Figure 1.** Perspective index and job satisfaction ratio (JPC Survey, 1992–2000, \( N = 8,908 \))
Figure 2. Perspective index and turnover candidate ratio (JPC Survey, 1992–2000, N = 8,886)

Figure 3, using the same JPC Survey data, shows a three-way cross table with the respective turnover candidate ratios for the group that felt job satisfaction and the group that did not feel job satisfaction for each level on the perspective index. The line graph on Figure 3 shows Cramer’s $V$, the cross table correlation coefficient for each level on the perspective index. This shows a strong cross table correlation for low perspective index values and a lower Cramer’s $V$ correlation coefficient for greater perspective index values, indicating that the higher the perspective index, the lower the Cramer’s $V$ correlation coefficient. In other words, the higher the perspective index, the less influence current job satisfaction has on the turnover candidate ratio.

As shown in the cross table on Table 1, there is a tendency to simply admit the correlation between job satisfaction and turnover candidates. However, in reality, Figure 3 clearly shows that only are surprisingly high at 0.9992 and 0.9946.
when the future parameter remains at a low level, we can observe the correlation between job satisfaction and turnover candidates in Japanese companies.

This is a natural product of the leaning on future principle, since the perspective index is a type of future parameter. As Takahashi (2013b) points out, a very high probability of future coming, or a very high future parameter, is linked to behavior that endures the present and leans towards expectations for the future. This enables the leaning on future principle to function, along which people choose a better future rather than act through present mercenary motives based on the past results. At the individual level, this is linked to the behavior in individuals of enduring the present in anticipation of a future in that company, even if there is no job satisfaction at present.

**Figure 3.** Correlation coefficient for turnover candidate ratio per perspective index/job satisfaction (JPC Survey, 1992–2000, $N = 8,866$)
These individuals do not leave their jobs, nor do they wish to. In other words, the data suggests that the higher the perspective index, which is a type of future parameter, the greater the function of the leaning on future principle.

5. Conclusion

No current studies on job satisfaction have attached any importance to “perspective” or future parameters. For example, despite Vroom (1964) making a point of introducing probability and formularizing expectancy theory as motivation by external rewards, interpretations by his successors in the field missed the point, focusing too much on the expected utility of external rewards. For example, as represented by Lawler and Porter (1967), the argument failed by stating that high job performance in some cases produces rewards which in turn cause job satisfaction. In other words, in the world of work motivation, job satisfaction degenerates into a product of job performance and rewards. However, this is not the case in reality. The future itself and the future parameter are of critical importance to job satisfaction and the decision to participate.

References

Ando, F. (2002). The real relationship between organizational culture and

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4 If the future parameter is high, the challenge concept becomes significant. The challenge is significant in the intrinsic motivation theory represented by Atkinson’s (1957) achievement motivation and incorporated in Deci’s (1975) theory of intrinsic motivation. Deci’s hypothesis is also validated by the JPC Survey data (Takahashi, 2002) and survey data taken from Japanese Company X (Takahashi, Ohkawa, Inamizu, & Akiike, 2013).


Takahashi, N. (1996a). Mitoshi to soshiki kinko [Perspective and


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