

A Study on the knowledge of Hiroshima Toyo Carp fans - Focusing on knowledge regarding fan team -

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Abstract

In this study, we used an internet - based survey to examine how knowledgeable or understanding Carp fans were of the representative history of the Carp, with the objective of clarifying what sorts of trends or characteristics female fans possessed.

It was revealed in this study that Carp fans have acquired a higher knowledge and understanding regarding the present Carp than that of the Carp's past glory or traditions. The conclusions drawn from this are specified in the following three items.

1. Carp fans had a greater understanding of continuously occurring facts or knowledge of the Carp from past to present than they did of past facts. In addition, it was revealed that they tend to have a high level of knowledge or interest in the present circumstances.

2. There were individual variations in the knowledge and understanding of Carp fans regarding past facts about the Carp, and it was characterised that there are substantial number of fans who are well - informed about the facts of the past.

3. Female Carp fans demonstrated a tendency to have a greater knowledge or interest in the present Carp than the past. The trends and characteristics of Carp fans overall, including the trends of these female fans, were more shown prominently using a conceptual scheme.

Key words : Management Strategy, Baseball, Fans, Carp

Introduction

The Hiroshima Toyo Carp (hereinafter abbreviated to "Carp") is a Japanese professional baseball (hereinafter abbreviated to "NPB") organisation that has become famous nationwide in recent years, such as with the return

of pitcher Hiroki Kuroda from the New York Yankees, the cultivating of young players, and the emergence of "Carp girls" (female Carp fans). Articles about pitcher Hiroki Kuroda and its economic percussions were then addressed in newspapers and television. In this way, many topics related to the Carp have been disseminated to ordinary persons by the mass media. Since the 30/9/2013 broadcast

of NHK television program "News Watch 9" regarding Carp girls among these topics, various events such as the "Kanto Carp Girls Baseball Game Watching Tour" have been held and gave rise to the Carp girl phenomenon. Many of these Carp girls turn out at baseball stadiums and passionately support the Carp and young Carp players. In addition, they have become a remarkably outstanding presence even at baseball stadiums with the red uniforms and promotional goods they wear.

In this way, it is of great interest to what extent Carp fans, who enthusiastically echo their cheers, are knowledgeable of or have an understanding regarding the Carp. In addition, it is also of great interest to what extent Carp girls, who have gone so far as to be referred to as the Carp girl phenomenon, are knowledgeable of or understand the Carp.

Therefore, in this study, we examined to what extent Carp fans are knowledgeable of or have an understanding regarding the Carp's representative history, with the objective of clarifying what trends and characteristics female fans possess.

Based on the above, the subject of this study has been set to the following three items.

1. Clarify trends surrounding the knowledge and understanding of Carp fans overall by analyzing the survey results.
2. Examine and analyze these characteristics after clarifying the trends surrounding the knowledge and understanding of Carp fans overall.
3. Clarify the trends, differences and characteristics of male and female Carp fans based on the results of our examination and analysis.

Explanation of terms

The terms used in this study are defined as follows.

"Carp" refers to Hiroshima Toyo Carp.

"Kuroda" refers to Hiroki Kuroda pitcher, who transferred from the New York Yankees.

"Carp women" are the female fans wearing red uniforms, who enthusiastically cheer the young Carp players who are drawing low annual salaries.

"NPB" is an abbreviation for Nippon Professional Baseball (Nippon Professional Baseball Organization).

Method

Subject

The study subjects are Carp fans. Excluding incomplete answers, 298 respondents' answers were analyzed. Table 1 shows the number and ratio of respondents.

Table 1. Number and ratio of respondents

	<i>N</i>	Percentage
Male	178	59.7%
Female	120	40.3%
Total	298	100%

Survey period

The survey period was from May 13 to May 26, 2015.

Survey methodology

In the examination into Carp fans, data was collected using an internet survey. The questionnaire was created with SurveyMonkey (<https://jp.surveymonkey.com/>). This method was chosen in consideration that internet users can easily acquire information about Carp's history.

The course of the survey is shown below. We first posted a request for cooperation in the survey on the social networking services (SNS) LINE, Facebook and Twitter. The persons who agreed to the survey request then went to the survey page we created by accessing the URL link in the request and responded. They responded in all question items with a four - grade evaluation from "I know this well" to "I don't know this at all", and these were converted into numerical values, from 4 points to 1 point, and analysed.

Survey content

The survey contents used in this study were composed using knowledge and information easily attainable on the internet. This was to clarify to what extent a typical Carp fan possesses knowledge and information that can be easily researched.

The questions on the questionnaire (20 items) are shown below.

Q.1 Shuichi Ishimoto is the first manager of the Carp.

Q.2 The name “barrel fund - raising” is derived from the managerial crisis (1950s) directly after the birth of the Carps, when money was collected from citizens using sake barrels.

Q.3 Following the end of the Second World War, support was being given by citizens as a symbol of Hiroshima's restoration.

Q.4 The Carp first won the league championship in the 1975 season but fell short at second place in the Central League.

Q.5 Approximately 300,000 people participated in the victory parade when the Carp first won.

Q.6 It is said that the first to have cheered with noise makers (such as trumpets), or using “jet” balloons launched in the Lucky Seventh (before the start of the seventh inning) are Carp fans.

Q.7 The Carp have not captured a championship since the 1991 season, and they are the farthest away from a victory among the 12 baseball clubs belonging to NPB.

Q.8 With the introduction of FAs (Free Agents), players who were active in the Carp (Kazuhisa Kawaguchi, Akira Eto, Tomoaki Kanemoto, Hiroki Kuroda, Takahiro Arai, Ken Takahashi, Kan Otake) have transferred to other baseball clubs with high compensation (Hiroki Kuroda and Ken Takahashi transfer to MLB).

Q.9 Carp is the only financially independent baseball club in the 12 baseball clubs belonging to NPB that does not have a new company.

Q.10 The Carp has continued over 40 consecutive years to operate in the black (1975 - 2014 seasons).

Q.11 The Carp's two retired uniform numbers are Sachio Kinugasa's “3” and Koji Yamamoto's “8”.

Q.12 There are 18 players in the Carp, such as Sachio Kinugasa, Koji Yamamoto and Yutaka Ono, who have made it into the Baseball Hall of Fame.

Q.13 The only pitcher to complete 200 wins in the Carp is Manabu Kitabeppu.

Q.14 There are six players who reached 2,000 hits in the Carp, such as Sachio Kinugasa, Koji Yamamoto and Kenjiro Nomura.

Q.15 The Carp frequently release limited goods (T - shirts, collaboration goods, etc.).

Q.16 The term “Carp Girl” became a household name

from the NHK television programmer “News Watch 9” broadcast on 30 September 2013.

Q.17 In the “Kanto Carp Girl Baseball Game Watching Tour” held last year in May, which targeted Carp girls living in Kanto, there was a deficit of approximately \$36,000 for the Carp. However, the effects of management were outstanding because of coverage by the mass media.

Q.18 With the success of fostering young players, true - born Carp players (Kenta Maeda, Yoshihiro Maru, Ryosuke Kikuchi, etc.) have flourished.

Q.19 The average annual salary of Carp players in 2014 was 26,790,000 JPY, and ranked 11th among the 12 baseball clubs belonging to NPB.

Q.20 I am also interested in the other 11 baseball clubs besides the Carp.

Method of processing data

SPSS 23.0 for Windows was used for statistical processing. Furthermore, the statistical level of significance of all the tests were less than 5%.

Limitations of this study

This study targeted Carp fans who are capable of acquiring information from the internet, and examined how much they knew about the Carp's representative history. It is therefore difficult to say that the survey results are representative of all Carp Fans, and we did not survey fans who have difficulty acquiring information from the internet or those who can not acquire information and did not respond to this survey. However, if the scores of Carp fans who can acquire information from the internet are low, it is possible to know a variety of trends such as being able to presume that they like the Carp but are not interested in the history.

On the other hand, the content of this survey only related to knowledge of the Carp's history, and even with some clarification of the trends or characteristics by analysing these findings, a limit probably exists.

Result of study 1

<Table 2> shows the scores and standard deviations of all question items.

Table 2. Results of replies to all question items

Question	Average	Standard deviation
Q.1	2.31	1.137
Q.2	3.40	.777
Q.3	3.53	.682
Q.4	2.43	1.027
Q.5	2.67	1.054
Q.6	3.50	.826
Q.7	3.68	.649
Q.8	3.72	.590
Q.9	3.71	.676
Q.10	3.12	1.016
Q.11	3.46	.853
Q.12	2.82	.828
Q.13	2.92	1.010
Q.14	3.04	.856
Q.15	3.68	.628
Q.16	2.74	.886
Q.17	2.93	.953
Q.18	3.79	.448
Q.19	3.15	.832
Q.20	2.66	.918

Result of study 2

<Table 3> shows the scores for all question items and their differences by gender, as well as the standard deviations.

Considerations of study 1. Regarding the scores for all question items

To clarify the trends surrounding the knowledge or understanding of Carp fans overall in Consideration 1, we extracted characteristic items from among all the question items and added the following considerations.

Q.18 had the highest score (3.79). This content was about the continuously occurring facts of the Carp from past to present. Q.8 had the second highest score (3.72). This content was also the same as Q.18. Q.9 had the third highest score (3.71). This content was likewise indicative of the Carp's long - continuing management style. Q.7 had the fourth highest score (3.68). This content was also

Table 3. Results of replies to all question items by gender

Question	Sex	Average	Average difference (male - female)	Standard deviation	<i>p</i>
Q.1	male	2.54	0.57	1.174	***
	female	1.97		.987	
Q.2	male	3.49	0.23	.707	*
	female	3.26		.855	
Q.3	male	3.65	0.30	.535	**
	female	3.35		.827	
Q.4	male	2.61	0.44	1.043	***
	female	2.17		.947	
Q.5	male	2.75	0.21	1.071	n.s.
	female	2.54		1.020	
Q.6	male	3.61	0.27	.753	**
	female	3.34		.903	
Q.7	male	3.81	0.33	.518	***
	female	3.48		.767	
Q.8	male	3.88	0.39	.429	***
	female	3.49		.710	
Q.9	male	3.85	0.35	.504	***
	female	3.50		.830	
Q.10	male	3.38	0.64	.933	***
	female	2.74		1.017	
Q.11	male	3.62	0.39	.743	***
	female	3.23		.948	
Q.12	male	3.02	0.49	.740	***
	female	2.53		.869	
Q.13	male	3.17	0.62	.944	***
	female	2.55		.995	
Q.14	male	3.31	0.68	.674	***
	female	2.63		.934	
Q.15	male	3.71	0.08	.614	n.s.
	female	3.63		.647	
Q.16	male	2.81	0.17	.894	n.s.
	female	2.64		.868	
Q.17	male	3.07	0.35	.939	**
	female	2.72		.937	
Q.18	male	3.83	0.10	.404	n.s.
	female	3.73		.501	
Q.19	male	3.28	0.32	.719	**
	female	2.96		.947	
Q.20	male	2.84	0.44	.882	***
	female	2.40		.911	

*** *p* < .001, ** *p* < .01, * *p* < .05

indicative of the current situation of the Carp over the last 25 years.

On the other hand, Q.1 had the lowest score (2.31). This content was about the temporary facts of the Carp when it was first founded. Q.4 had the second lowest score (2.43). This content was about the facts of the Carp when they won the championship 40 years ago. Q.20 had the third lowest score (2.66). This content was about baseball clubs other than the Carp. Q.5 had the fourth lowest score (2.67). This content was also the same as Q.4.

Based on these factors, the knowledge and understanding of Carp fans regarding the history of the Carp indicated high scores in relation to continuously occurring facts from past to present, and their knowledge of old sporadic facts and events indicated low scores even when they were facts about when winning. In addition, many of the questions with halfway scores were related to sporadic facts that have occurred in recent years or the great achievements of Carp players. It is conceivable that from the high scores of question items regarding the present Carp, the knowledge of Carp fans about the Carp indicates a strong interest towards the present.

It is said that Carp fans are wildly enthusiastic in comparison with the fans of other baseball clubs. Though the Carp placed fourth in the Central League this season, there is the fact that they recorded all - time high attendance numbers. It is conceivable that the results of this survey indicate a strong support for the present team and its players without being caught up in the Carp's past glories or traditions.

Considerations of study 2. Regarding the standard deviations of all question items

The trends surrounding the knowledge and understanding of Carp fans overall is clarified in Consideration 1. We analyzed characteristics regarding the trends of Consideration 1 based on the standard deviation values, and added the following considerations.

When listed in order, the question items with the largest standard deviation values were Q.1 (1.137), Q.5 (1.054) and Q.4 (1.027). These were included among the four items with low scores that were addressed in Consideration 1. Given that the above - mentioned three standard deviation values are large, it is conceivable that there are great individual differences even among Carp fans in their

knowledge regarding the past facts of the Carp. Therefore, while it is not a majority, there is knowledge or interest among Carp fans regarding the old Carp, and it is presumed that there are also fans in existence who admire the traditions and past facts of the Carp.

On the other hand, when listed in order, the four question items with the lowest deviations were Q.18 (.448), Q.8 (.590), Q.15 (.628), and Q.7 (.649). Among these, the question items other than Q.15 were included in the four items with high scores addressed in Consideration 1. Their content related to continuously occurring facts of the Carp from past to present. The scores for these items were high and the standard deviation values were low. Based on these factors, values are indicated in which it is conceivable that for the most part, the knowledge and understanding of many Carp fans is significantly high regarding the unique and continuously occurring phenomena of the Carp from past to present.

Based on these factors, the knowledge and understanding of Carp fans overall is high regarding the unique and continuously occurring phenomena of the Carp from past to present. In addition, there is interest among Carp fans for the old Carp, and it is a conceivable characteristic that there are more than a few fans who admire the Carp's traditions and past facts.

Considerations of study 3. Regarding the differences between men and women in all question items

By analyze the differences and significant differences in the scores, we added the following considerations in Consideration 3 to clarify the trends, differences and characteristics of male and female Carp fans.

When listed in order, the five question items with the largest difference in scores between male and female fans were Q.14 (0.68), Q.10 (0.64), Q.13 (0.62), Q.1 (0.57), and Q.12 (0.49). The content of these items pertained to knowledge regarding old Carp players and the managing conditions of the Carp. Therefore, famous players from the old days of the Carp and the Carp's managing conditions held little interest for female fans compared to male fans, and it was revealed that not much knowledge has been acquired in relation to these topics.

In addition, female fans had low scores compared to the scores of male fans in all question items. It was therefore revealed that among Carp fans, male fans had a higher

knowledge and understanding regarding the history of the Carp. A significant difference was then established in 16 of the 20 question items, and this result corroborated the previously described facts.

On the other hand, no significant difference was established in four of the items regarding the characteristics of female fans. Among these, the three items Q.15, Q.16 and Q.18 were clearly recent topics, and the difference between males and females tended to lessen as the topics became more recent. Female fans therefore have little knowledge or interest in the history of the Carp compared to male fans, and it was considered that there is almost no difference with male fans in relation to knowledge or interest in the present Carp.

Based on these factors, Carp fans overall showed an interest in the present Carp in Considerations 1 and 2, and it was revealed that they passionately supported the present Carp. A schematic diagram of the historical knowledge of Carp fans is shown in <Figure 1>.

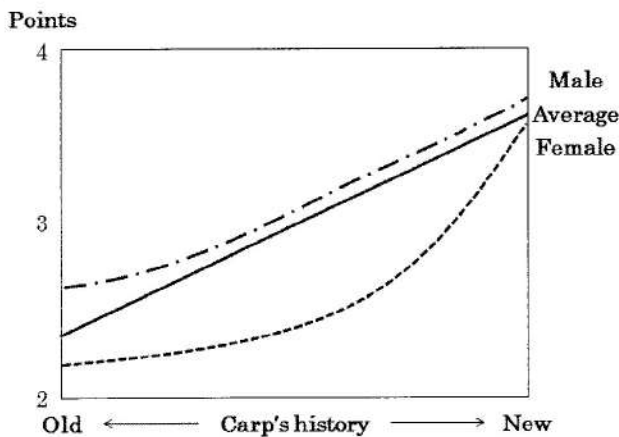


Figure 1. Conceptual knowledge of Carp fans regarding Carp's history

Conclusion

It was revealed in this study that Carp fans have acquired a higher knowledge and understanding regarding the present Carp than the Carp's past glory or traditions. The conclusions drawn from this finding are specified in the following three items.

1. Carp fans had a greater understanding of continuously occurring facts or knowledge of the Carp from past to present than they did of past facts. In addition, it was

revealed that they tend to have a high level of knowledge or interest in the present circumstances.

2. There were individual variations in the knowledge and understanding of Carp fans regarding past facts about the Carp, and it was characterized that there are substantial numbers of fans who are well-informed about the facts of the past.

3. Female Carp fans demonstrated a tendency to have a greater knowledge or interest in the present Carp than the past. The trends and characteristics of Carp fans overall, including the trends of these female fans, were more shown prominently using a conceptual scheme.

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