The Relation between Role Model Holding and Proactive Behavior in Current Job among Young Workers

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Introduction

The current study describes the relations between the proactive behavior of young employees and how it is promoted or hindered by having a role model in the workplace. Furthermore, we will examine whether the relationship among the two variables varies depending on the types of work in which the young employees are engaged.

A role model is defined as "a person who is an example of identification and learning, providing a motivating path to success" (Jopp, Jung, Damarion, Mirpuri & Spini, 2016) or "an influential person, such as a parent, teacher, boss or mentor, who provides an example for individuals to emulate" (Gibson, 2004) or "a person who has made an impact on one's academic and career life by doing something admirable" (Nauta & Kokaly, 2001). In other words, a role model can be thought of as a person who is both an object of imitation and an influence on behavior in various ways.

For young workers, it is not easy to socialize in an organization, adapt to the industry and form their career autonomously after joining a company (Nakahara & Mizokami, 2014). To overcome these difficulties, it might be extremely important to have positive or facilitating influences from role models.

The impact of having role models on learning in vocational education has been studied in various occupational fields (Zirkel, 2002; Tagawa, 2016; Jack & Chambers, 2017). In addition, it has had a supportive effect on career exploration and career maturity in undergraduates (Buunk, Peiro & Griffioen, 2007). In other words, the possession of role models may help individuals clarify their future careers and to prepare for them.

Then, how does having a role model support the career development of an individual? Two factors, "support and guidance" and "stimulation and modeling," have been proposed and scaled from studies that analyzed the functions of role models (Natuta & Kokaly, 2001). Alternatively, a four-factor scale (Bosman Hessels, schuntjents, Praag & Verheul, 2012: "Stimulation and motivation," "Enhancing self-efficacy," "Learning from the example," and "Learning from support,") and a five-factor model (Mizoguchi & Mizokami, 2020: "Respect and ideal image," "Broadening horizons," "Support and advice," "Modeling behavior," and "Avoidance") have also been found. The findings above evidentially supported from Nakahara & Mizokami (2014). Nakahara et al (2014) suggested that having a wide range of social relationships with people outside the university and of different ages during the university period facilitates organizational socialization after entering the workforce. The university period is a time of "anticipatory socialization," and it is suggested that having rich human relationships during the university period fosters the social adaptability necessary for the organizational socialization required after entering the workforce.

The above studies mainly discussed pre-employment career exploration and career maturation for college and high school students, and not for

young employees after entering the workforce. While it is important to achieve sufficient career maturity before entering the workforce, it seems equally important to find appropriate role models after entering the workforce and to obtain the environment and skills to sustain career development through work.

On the other hand, in addition to "organizational socialization," "proactive behavior" has been drawing attention as an ability that is required for young employees after entering the workforce (Ogata, 2016). Proactive behavior refers to an individual's active and self-initiated role in adapting to the organizational environment, such as building interpersonal relationships in the workplace and gathering the necessary information (Ashford & Black, 1996). Proactive behavior refers to the viewpoint that young workers are not only passive but also create their ideas and actively influence the environment (Chan & Schmitt, 2000). Proactive behavior was defined as "forward-thinking, future-oriented, and change-oriented behavior in which individuals influence themselves and the environment" (Ashford & Black, 1996). "Feedback-seeking behavior" and "social relationship building" are viewed as basic or essential components of proactive behavior (Grant & Ashford, 2008). Furthermore, some findings assume three components to proactive behavior ("innovation behavior," "feedback-seeking behavior," and "political knowledge": Cooper-Thomas & Burke, 2012), ("meaning-making," "relationship building," and "positive framing": Wanberg & Kammeyer-Mueller, 2000). Some even postulate four more aspects ("voice," "innovative behavior," "political knowledge," and "career initiative": Ashford & Black, 1996). Ishikawa & Hara (2021) suggested that regardless of the industry type, employer or senior staff

require proactive behavior to a young worker and the level of conducted proactive behavior was lower than the level expected. It might be that finding factors that develop young workers' proactive behavior is an important research topic.

In this study, we examined the extent to which proactive behaviors of young workers were influenced by finding role models in the workplace after entering the workforce. Prior research has confirmed that "building relationships with heterogeneous others" during college affects proactive behavior after entering the workforce (Nakahara & Mizokami, 2014). In this study, we examine how proactive behavior is affected by "having a role model at work" and whether the relationship between holding a role model and engaging proactive behavior changes by types of work.

Method

Participants

All participants were graduates from A university in Yamanashi prefecture, Japan. We sent out a survey request to 581 employees who have been working for 2 years and 538 employees for 3 years. The final samples were sixty-three 2nd-year employees (63/581, 10.8%) and fifty-nine 3rd-year employees (59/538, 11.0%). Demographics of respondents were shown in Table1.

Procedure

Request letters for the survey were delivered to graduates of A university in May 2021. In the letter, the link URL to the webform was printed and participants went to the form via any device they had and answered the

questionnaire represented in the form.

Items

1) Demographics: years of employment, gender, types of the main business of a company, types of work, experience of job change (Table1)

2) Role model holding: "Do you have any people who are currently influencing you or wanting to refer to in terms of your job or way of working in your workplace?" Participants answered a dichotomous scale of "yes" or "no".

3) Proactive behavior in the current workplace: We adopted a short version of a proactive behavior scale (PBS) developed by Ogata (2016). Ogata (2016) measures individual differences or profiles of engaging in proactive behavior, which consists of 16 items and has 4 factor-structure (Innovation action, Creating networks within a company, Positive framing, Exploring feedback). We adopted the full 16 items to measure respondents' state of engaging in proactive behavior in the current job. Answering was requested based on the forced 5 point-Likert Scale (1. Disagree-5. Agree).

Analysis

At first, to reveal the factor structure of PBS, we conducted a principal component analysis with Promax rotation. Secondly, we conducted two-way ANOVA (each factor of PBS (within) × role model holding (2: between) on average scores of each factor of PBS) to reveal the relationship between role model holding and proactive behavior in the current job. Finally, to investigate whether the relationship between role model holding and proactive behavior was different among types of work,

two-way ANOVA (type of work (6: between) × role model holding (2: between) on each average score of each factor of PBS).

Results

Demographics of participants and state of role model holding

Table1 shows respondents' tendency about 6 demographic variables. The percentage of role model holders was 47.54% (Table2). The most frequently selected category of role models was supervisor/manager, and the second common choice as a role model was a friend at work (Table3).

Principal component analysis on PBS

To explore the optimal number of factor for PBS, diagonal SMC and MAP were performed. Diagonal SMC suggested a 5-factor solution and MAP suggested a 4-factor solution. To model the simplest factor structure, a principal component analysis with Promax rotation was performed with 4 components assigned. It was not necessary to select and exclude items from the model because all factor loadings showed $\lambda > .40$. Table4 shows the pattern matrix of principal component analysis with Promax rotation for PBS. The structure obtained from the principal components of PBS was identical with the original structure of PBS (Ogata, 2016).

The first component was named "Innovation action" as consisted of items such as "Proactively trying out new ideas", "Trying out new ways of doing things instead of being bound by traditional ways of working" and "Actively putting my ideas into action." The second component was named "Creating networks within a company" as consisted of items as "Creating a network in the company to obtain various information", "I

Table 1 Respondents' demographics

Variables	levels	N	%
Years of employment	2nd year	63	51.64
	3ed year	59	48.36
Gender	Male	80	65.57
	Female	42	34.43
Current employment	Company employee	105	86.07
	Civil servants	11	9.02
	Managers	1	0.82
	Temporary worker	4	3.28
	Unemployed	1	0.82
Types of business	Electricity, gas, heat supply, and water supply	2	1.64
	Real estate and goods leasing	5	4.10
	Wholesale and retail trade	35	28.69
	Other service industry	13	10.66
	Education and Learning Support	4	3.28
	Construction	4	3.28
	Manufacturing	12	9.84
	Public Service	7	5.74
	Transportation and postal services	5	4.10
	Academic Research, Professional and Technical Services	2	1.64
	Accommodation and Food Services	4	3.28
	Medical care and welfare	8	6.56
	Finance and Insurance	10	8.20
	Information and Communication	9	7.38
	Agriculture, Forestry, Fishing, Mining	2	1.64
Types of work	Sales and marketing	62	50.82
	Office work	18	14.75
	Engineering	11	9.02
	Service Occupations	13	10.66

	Professional	11	9.02
	Other	7	5.74
Job changing	has not changed	109	89.34
	has changed	13	10.66

Table 2　Number and percentage of respondents who have a role model in workplace

	N	%
Role model holder	58	47.54
Role model have-nots	64	52.46

Table 3　Number and percentage of each type of role model

	N	%
Friend at work	5	7.81
Supervisor/manager	34	53.13
Senior or junior staff	11	17.19
Parents	7	10.94
Other	7	10.94

keep good relationships with people in other departments" and "I make use of the company's network to progress my work." The third component was named "Exploring feedback" as consisted of items such as "I am learning by getting advice and feedback from my colleagues", "I am learning by getting advice and feedback from my supervisor" and "I am learning by being engaged in the same work with my co-workers." The fourth component was named "Positive framing" as consisted of items

such as "When I am not sure what the outcome will be, I always think of the best side", "I am very optimistic about my future" and "I always think about the bright side of things."

PBS score differences between role model holder and role model have-nots

To confirm whether the average values for each factor of PBS differ from role model holding, two-way ANOVA (different factor of PBS (4: within) × role model holding (2: between) on an average score of each factor of PBS) was conducted, which showed significant interaction (F (1, 360) =2.166, p <.10, η^2_p=.018). A simple main effect (with Holm method) revealed that role model holder showed significantly higher average scores than role model have-nots in Innovation action (t (480) =-2.340, p <.05, d=-1.139; role model have-nots: M=3.526; role model holder: M=3.859), Creating networks within company (t (480) = -2.029, p <.05, d=-.736; role model have-nots: M=3.883; role model holder: M=4.172), and Exploring feedback (t (480) = -2.925, p <.01, d=-1.061; role model have-nots: M=3.943; role model holder: M=4.359), but there was no significant difference in the average score of Positive framing (t (480) =-0.325, p=.745, d=-.118) between role model have-nots (M=3.672) and role model holder (M=3.719). In three out of four component of PBS, role model holder is considered as more highly tend to engage in proactive behavior than role model have-nots.

PBS score differences between role model holder and role model have-nots by types of work

To confirm whether the relationship between PBS and role model holding changed by types of work, two-way ANOVA (role model holding (2:

Table 4　Principal component analysis with Promax rotation of the scale of proactive behavior

Item	Factor				h^2
	1	2	3	4	
Proactively trying out new ideas_1	**.95**	-.13	.04	.07	.85
Trying out new ways of doing things instead of being bound by traditional ways of working_1	**.92**	-.14	-.01	-.02	.71
Actively putting my own ideas into action_1	**.86**	.09	-.07	-.02	.78
Proposes new solutions to problems_1	**.76**	.06	-.12	.12	.65
Creating a network in the company to obtain various information_2	-.23	**.94**	.09	.06	.75
I keep good relationships with people in other departments_2	-.10	**.73**	-.05	.12	.48
I make use of the company's network to progress my work_2	.32	**.65**	.05	-.16	.74
I get information from the company's network to progress my work _2	.40	**.58**	.03	-.25	.72
I am trying to expand my relationships within the company_2	.22	**.52**	.08	.16	.59
I am learning by getting advice and feedback from my colleagues_4	-.17	.09	**.93**	-.06	.82
I am learning by getting advice and feedback from my supervisor_4	.09	-.16	**.84**	.07	.71
I am learning by being engaged in the same work with my co-workers_4	-.04	.18	**.67**	.12	.60
When I am not sure what the outcome will be, I always think of the best side_3	.01	-.08	.20	**.85**	.80
I am very optimistic about my future _3	-.04	.48	-.28	**.68**	.69
I always think about the bright side of things _3	.24	-.01	.31	**.61**	.74
I don't expect things to work out in my favor _3	.03	.18	.38	**-.44**	.32
Factor contribution	5.165	4.657	3.391	2.686	
α	.888	.838	.811	.626	
ω	.920	.895	.880	.839	

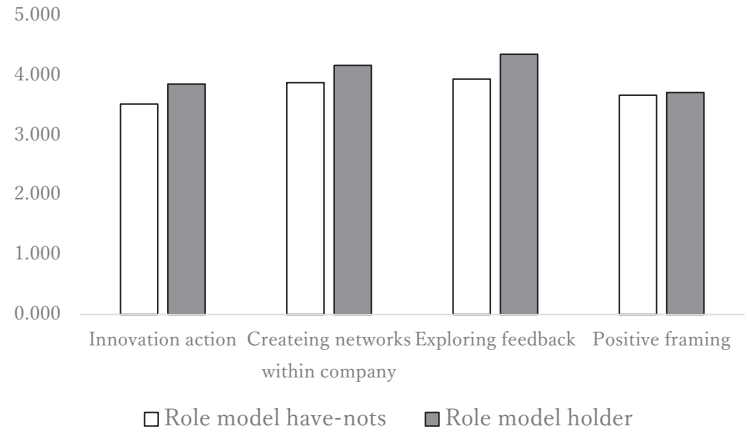

Figure 1 Difference of each component of proactive behavior between Role model holder and role model have-nots

between) × types of work (6: between)) on the average score of each component of PBS was performed.

On Innovation of PBS (Figure2), both main effects (role model holding and types of work) showed no significant effect (role model holding: $F(1, 110)=0.215$, *ns*, $\eta^2_p=.002$; types of work: $F(51, 110)=1.238$, *ns*, $\eta^2_p=.053$), and interaction showed moderately significant effect ($F(5, 110)=1.960$, I $<.10$, $\eta^2_p=.082$). The simple main effect (multiple comparison with Holm method) of role model holding was significant on sales and marketing ($t(110)=-2.645$, $p<.01$, $d=-.943$) (role model holder: $M=4.05$ ($SE=0.14$), role model have-nots: $M=3.47$ ($SE=0.16$)).

On Creating networks within company of PBS (Figure3), the type of work showed significant effect ($F(5, 110)=2,421$, $p<05$, η 2p=.009), the factor of role model holding did not reach significant level ($F(1,110)=1.022$, $p=.314$, η 2p=.009) and interaction showed significant effect ($F(5, 110)$

=3.556, p <.005, η 2p=0.139). The simple main effect (multiple comparison with Holm method) of role model holding was significant on Professional (t (110) = −3.015, p <.005, d=−1.774) and Other (t (110) =2.963, p <.005, d=2.368). In Professional, Role model holder showed higher score of Creating networks with company than Role model have-nots (role model holder: M=4.40 (SE=0.31), role model have-nots: M=3.13 (SE=0.28)). In job category of Other, Role have-nots showed higher average score than role model holder (role model holder: M=3.00 (SE=0.49), role model have-nots: M=4.72 (SE=0.31)).

On Exploring feedback of PBS (Figure4), interaction did not show a significant effect (F(5, 110)=1.313, p=.264, η 2p=.056). Only factor of role model holding was significant (F(5, 110)=5.293, p <.05, η 2p=.046). In detail, role model holder strongly engaged in Exploring feedback than role model have-nots (t(110)=−2.301, p <.023, d=−.550).

On Positive framing, all factor and interaction term did not show significant effect (F=0.472~1.187, p=.320~.950, η 2p=.000~.051).

In summary, proactive behavior is facilitated through the possession of role models. In other words, no matter what type of work young workers engaged in, having role models was essential for demonstrating proactive behavior Overall trend. And the analysis by the type of work showed an interesting interaction effects between role model holding and type of work on proactive behavior: although not statistically significant, proactive behavior was promoted more strongly in not having role models when working in “Other” type of work (the factor of role model holding reached a significant level only for Creating networks within company).

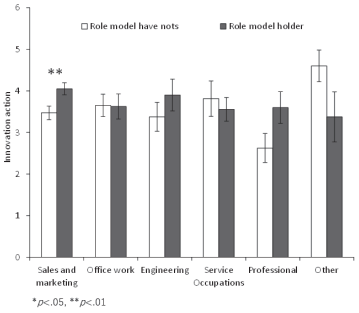

Figure 2 Average scores of Innovation action in PBS by role model holding

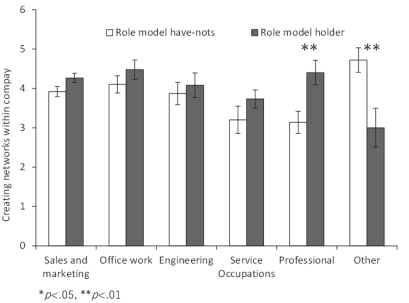

Figure 3 Average scores of Creating networks within company in PBS by role model holding

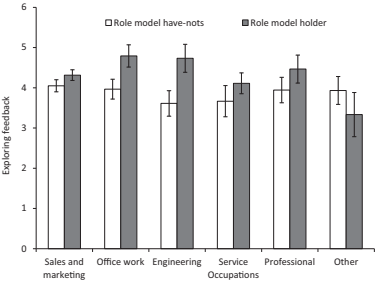

Figure 4 Average scores of Exploring feedback in PBS by role model holding

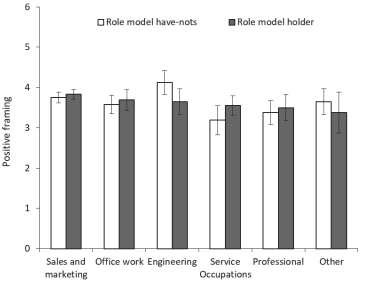

Figure 5 Average scores of Exploring feedback in PBS by role model holding

Additional analysis

To clarify the demographic traits of young workers at "Other" type of work, we showed cross-tables between the type of work and some demographic variables: (1) current employment, (2) type of business, and (3) role model holding (Table5). Table5-(1) revealed that most of the workers engaging in "Other" type of work were company employees and

the ratio of company employment among "Other" was not significantly skewed based on residual analysis although χ^2-test showed that the bias of the measured frequencies is significant ($\chi^2(20)=36.218$, $p<.01$, CV=.272). Table5-(2) revealed that the relation between the type of work and type of business reached a significant level ($\chi^2(70)=158.867$, $p<.000$, CV=.510). A young worker at "Other" mainly engaged in "manufacturing" and "information and communication", and that skewness was significant based on residual analysis. Table5-(3) revealed that the relation between the type of work and role model holding was not significant ($\chi^2(5)=4.361$, p=.499, CV= .189).

Most of the "Other" workers were company employees. The "Other" type of worker was only in two types of business: "manufacturing" and "information and communication". It might be that the work "Other" was specified in a certain business. There was no tendency for "Other" workers not to have a role model. Based on these analyses, there might be no specific bias about demographics of "Other" work although limited in the type of business. So, we should attribute the reason that in "Other" workers role model holders showed less proactive score than role model have-nots not on demographic characteristics of work type of "Other".

Discussion

This study investigated whether holding role models at work promoted proactive behavior at work in young workers. Based on survey data analysis, it was discovered that young workers who hold a role model at work more strongly engaged in proactive behavior at work than those who had no role model at work did.

Table 5 Cross table of type of work and (1) current employment, (2) type of business, (3) role model holding

(1) Current employment

Type of work	Current emplyment				
	Company employee	Civil servants	Managers	Temporary worker	Unemployed
Sales and marketing	△ 60	▼ 0	1	▼ 0	1
Office work	▼ 12	△ 5	0	1	0
Engineering	8	2	0	1	0
Service Occupations	12	0	0	1	0
Professional	▼ 7	△ 4	0	0	0
Other	6	0	0	1	0

Note △ indicates that the actual measured frequency is greater than the expected frequency and ▼ indicates that actual measured frequency is less than the expected frequency.

(2) Type of business

Type of work	Type of business														
	Electricity, gas, heat supply, and water supply	Real estate and goods leasing	Wholesale and retail trade	Other service industry	Education and Learning Support	Construction	Manufacturing	Public Service	Transportation and postal services	Academic Research, Professional and Technical Services	Accommodation and Food Services	Medical care and welfare	Finance and Insurance	Information and Communication	Agriculture, Forestry, Fishing, Mining
Sales and marketing	1	△ 5	△ 31	5	▼ 0	2	3	▼ 0	2	1	1	2	6	2	1
Office work	1	0	▼ 0	1	0	0	3	△ 3	1	1	0	2	△ 4	1	1
Engineering	0	0	▼ 0	1	△ 2	△ 2	△ 3	0	0	0	0	1	0	2	0
Service Occupations	0	0	3	△ 5	△ 2	0	0	0	1	0	△ 2	0	0	0	0
Professional	0	0	1	0	0	0	0	△ 4	1	0	1	△ 3	0	1	0
Other	0	0	0	1	0	0	△ 3	0	0	0	0	0	0	△ 3	0

Note △ indicates that the actual measured frequency is greater than the expected frequency and ▼ indicates that actual measured frequency is less than the expected frequency.

(3) Role model holding

	Role model holding	
Type of work	holder	have-nots
Sales and marketing	27	35
Office work	10	8
Engineering	6	5
Service Occupations	4	9
Professional	6	5
Other	5	2

Principal component analysis revealed that the principal component structure among young workers at work in the original article (Ogata, 2016) was almost perfectly replicated in our data, which suggested high validity and generality of the factor structure of the scale of Ogata (2016).

ANOVA suggested that holding a role model at work might promote proactive behavior at work among young workers in the factor of "Innovation action", "Creating networks within a company" and "Exploring feedback". It would be that holding the role model is a powerful prompter for a young worker to try to engage in proactive behavior.

However, there was no effect of holding role model on engaging in the "Positive framing" component of proactive behavior, which suggested that "Positive framing" tends not to change by holding role model or not. Behavioral genetics suggests that dispositional resilience is highly influenced by genetics and there could be difficult to be influenced or changed by social influences (Hirano, 2011). On the other hand, acquisitive resilience is susceptible to social influences (Hirano, 2011). In Hirano (2011) the factor of dispositional resilience consists of "optimism",

"control", "sociability" and "vitality". What is meant by "optimism" and "control" at Hirano (2011) seems similar to what is meant by the Positive framing factor in the scale of proactive behavior (Ogata, 2016). This tendency to be defined by genetics in Positive framing may be one of the factors behind the results of our study.

Examining the effects of role model holding on proactive behavior by types of work, in most types of work, the statistical test did not reach a significant level, however, average scores were higher in role model holders than role model have-nots. Those results suggested that regardless of the type of job, it is important to have a role model to implement proactive behavior.

On the other hand, it was also observed that there was a type of work in which having a role model inhibited proactive behavior, named the "Other" type of work in this research. Examining the demographics of the respondents who engaged in "Other" type of work, almost all of them were working as full-time employees in a private company. And there were no specified traits of "Other" workers from the perspective of the type of business and role model holding. Detail research should be conducted on the causal relation between role model holding and engaging in proactive behavior. It will be interesting to clarify (1) detail about what work of "Other" is, and (2) which is a more plausible causal relation: whether a worker who does not have role models are engaged in "Other" work, or whether role model holding has a negative impact on proactive behavior when they are engaged in "Other" work.

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