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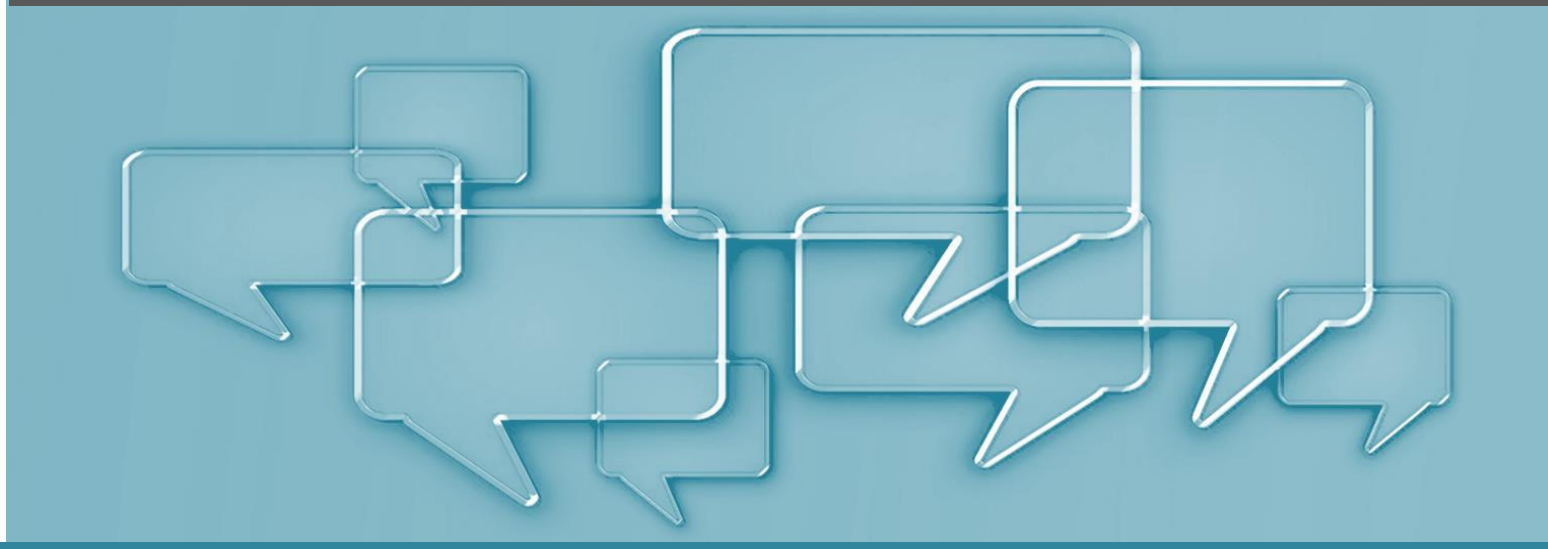

Multiple Applications and Invitation to a Job Interview at the Same Company

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Multiple applications and invitation to a job interview at the same company*

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Abstract

Many people apply for positions in different functional areas (e.g. marketing and finance) at the same organization. We investigate the application strategy of a job candidate by sending multiple applications and its success i.e. being invited to the job interview. Our results from data of a large US-American multinational organization show that sending multiple applications to different functional areas decreases the invitation probability to a job interview for both external and internal candidates. However, sending multiple applications to the same functional area increases the invitation probability for external candidates, while it decreases for internal candidates.

JEL codes: J4; M1; M5

Keywords: Applicant behavior, multiple applications, job interview, human capital theory, categorical imperative

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1. Introduction

Many job seekers apply to more than one job at the same organization, which is referred to as multiple applications. The pervasive use of online application systems facilitates multiple applications. However, research has mainly neglected this topic. Only Fernandez and Weinberg (1997) have controlled for the idea of multiple applications and have not found any effect on the invitation probability to a job interview. In this study, we analyze the influence of different types of multiple applications on the invitation probability by explicitly considering whether the applications are sent to the same (e.g. marketing and marketing) or different (e.g. marketing and finance) functional areas within a single organization.

Two major approaches provide opposing answers to this question. According to *human capital theory,* increasing one's knowledge and abilities increases one's earnings (Becker, 1962), because organizations appreciate knowledgeable employees and believe that these people possess desired attributes, such as diligence (Ng and Feldman, 2009). Accordingly, investments in education increase one's employment options and career benefits (Wayne et al., 1999). Having knowledge in several areas -being a generalist- is often considered beneficial (Lazear, 2005). In fact, many times generalists are recruited, even though specialists are required (Wang and Murnighan, 2013). Their broad knowledge and skills predispose generalists to get different kinds of jobs across organizational functions. Many organizations strive to increase their employees' functional flexibility enabling them to work on a variety of tasks across organizational functions, such as marketing or finance (Reilly, 1998). Therefore, we propose: *Hypothesis A: Applying to different functional areas at the same organization increases applicants' chance to be invited to a job interview.*

According to the *categorical imperative*, people (e.g. applicants) are often assessed by others (e.g. recruiters) via categories and are often forced to fit into a given category; those who do not

fit tend not to be considered further (Zuckerman, 1999). Zuckerman et al. (2003) show that actors and actresses that fit a particular genre of movies have a higher chance to get a future role in that genre, as compared to actors and actresses that do not fit a particular genre of movies. Giorgi and Weber (2015) show that increasing the consistency of the framing repertoires in an analyst's reports over time raises the likelihood to be listed as a highly prestigious analyst. The effects of the categorical imperative can be explained by consistency in behavior that makes identification easier and leads to greater appreciation (Giorgi and Weber, 2015). Similarly, the chance to persuade others decreases if different messages are used repeatedly (Reich and Tormala, 2013), e.g. applying to different functional areas leads to negative responses. Therefore, we propose: *Hypothesis B: Applying to different functional areas at the same organization decreases applicants' chance to be invited to a job interview*.

2. Data and organizational background

The data stem from a large US-American multinational organization who operates in machine building, energy, health, and transportation. We employ the available data for the open positions at the organization between January 2013 and August 2014. The organization uses an online application system for recruiting potential employees. Applicants have to create an account in the system and provide all relevant information for an application. Thereafter, they are allowed to submit as many applications as they wish. The system keeps record of the number of applications a certain applicant has made and the functional area of the job (e.g. marketing or finance) as well as applicant related data (e.g. education) (see Table A in Appendix). Recruiters screen all the applicants with the help of information provided by the system and then invite applicants for an interview. We identify whether an applicant has sent a single application or multiple applications. If an applicant has sent multiple applications to only one functional area, we coded this as a

consistent multiple application (e.g. two times in finance). If an applicant has sent multiple applications to different functional areas, we coded this as an inconsistent multiple application (e.g. one in finance and one in marketing).

We observe 4,444 applicants who sent 6,517 applications to different functional areas in the organization. Applicants have seven years of job experience and about 17% of them are female. Overall, 54.52% of the observations are single applications and 45.48% of them multiple applications which are divided into consistent (21.04%) and inconsistent (24.44%) multiple applications (see Table B in Appendix for more detail).

3. Results

Figure 1 shows the invitation probability of internal and external applicants[1] who have sent single or multiple applications to the functional areas of the company. Single applications from external candidates have a 6.2% probability to be invited for a job interview, whereas consistent multiple applications increase the chance to 9.5% ($p<0.01$, MWU-test). On the contrary, inconsistent multiple applications decrease the invitation probability to 2.4% ($p<0.01$, MWU-test). Single applications from internal candidates have a 40.8% probability to be invited. The invitation probability decreases to 31.5% when applicants send consistent multiple applications ($p=0.002$, MWU-test) and sharply decreases to 17.5% when they send inconsistent multiple applications ($p<0.01$, MWU-test). If we pool all the data, the difference between single and (consistent or inconsistent) multiple applications remains unchanged as in the Figure 1 for the external candidates ($p<0.01$, MWU-test, for all).

[1] We divided the data into external and internal applicants in line with literature that show differences between internal and external candidates regarding the recruiting process (Bidwell and Keller, 2014).

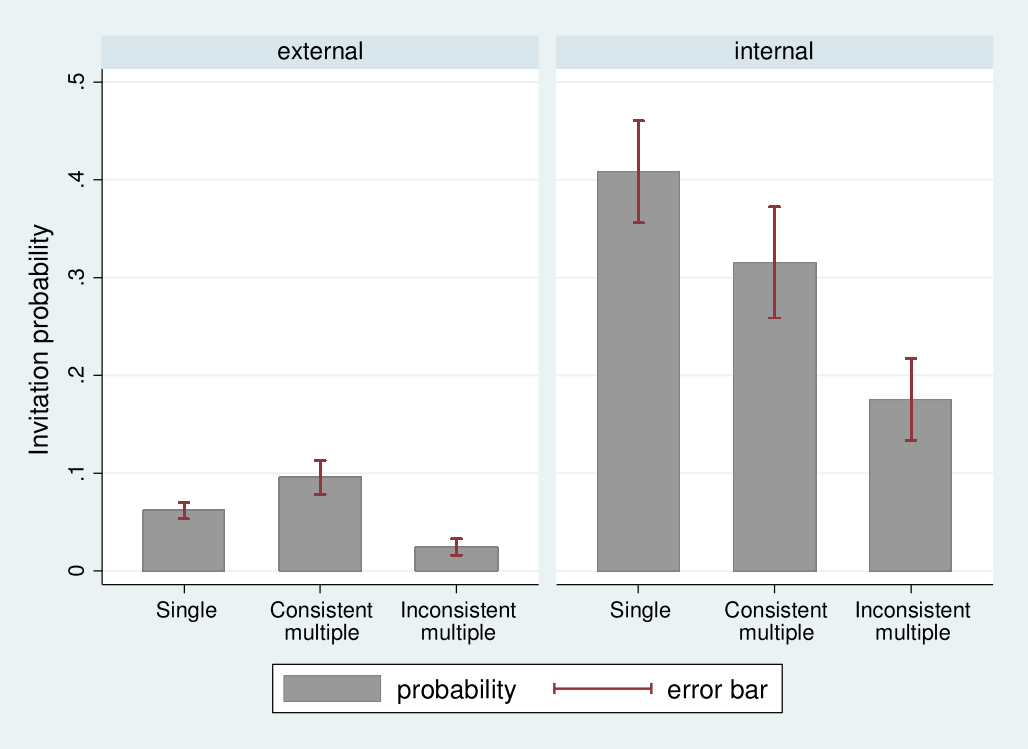

Figure 1. Invitation probability by single and multiple applications for external and internal applicants. (Error Bars, Mean ± SEM.)

Table 1 shows the probit estimation on the invitation probability of consistent and inconsistent multiple applications by external and internal candidates. The first models present that sending more applications decreases the invitation probability for a job interview for external and internal applicants. In the following models, we distinguish consistent and inconsistent multiple applications. For external candidates, the invitation probability significantly increases with a consistent multiple application (p=0.001, F-test) and significantly decreases with an inconsistent multiple application (p=0.0006, F-test) in comparison to sending a single application. These results are robust when we control for gender, career level, education and field of studies. However, for internal candidates, the invitation probability significantly decreases with a consistent multiple application (p=0.027, F-test) and an inconsistent multiple application

(p=0.001, F-test) in comparison to sending a single application. These results are robust when we control for gender and career level.[2]

Table 1 - Invitation probability for a job interview.

Explanatory variables	Dependent variable Invited to job interview (0=No, 1=Yes)						
	External applicants				Internal applicants		
	1	2	3	4	1	2	3
Number of applications	-0.011***				-0.031***		
	(0.002)				(0.003)		
Consistent applications		0.030***	0.027***	0.025***		-0.085**	-0.088**
		(0.010)	(0.009)	(0.009)		(0.038)	(0.038)
Inconsistent applications		-0.040***	-0.033***	-0.025***		-0.228***	-0.231***
		(0.007)	(0.006)	(0.006)		(0.056)	(0.056)
Controls							
Gender	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Career level	No	No	Yes	Yes	No	No	Yes
Education	No	No	No	Yes	No	No	No
Field of studies	No	No	No	Yes	No	No	No
Pseudo R2	0.017	0.024	0.100	0.119	0.079	0.041	0.048
AIC	2466.62	2450.45	2262.37	1842.12	1041.77	1087.03	1080.75
BIC	2486.46	2476.91	2295.45	2089.02	1056.23	1106.32	1104.85
N (applications)	5513	5513	5513	4902	917	917	917
N (applicants)	3869	3869	3869	3429	502	502	502

Notes. Probit regressions reporting marginal effects, clustered by applicants. Robust standard errors are in parentheses. ***, **, * denote significance at the 1%, 5%, 10% level.

In Table 1, we assumed that applications from a given applicant have been screened by recruiters simultaneously. Therefore, recruiters could identify multiple applications of a given applicant prior to making the invitation decision. However, they might screen applications of a given applicant sequentially. In this case, the first application of a given applicant is treated as a single application. Therefore, we run a robustness check by assuming sequential screening and find that the effects we identified in Table 1 remain robust (see Table C in Appendix).

[2] We could not control for education and field of studies for internal applicants due to non-availability.

4. Conclusion

Despite the great theoretical and practical relevance, the important question whether sending multiple applications to different functional areas has an impact on applicants' chance to be invited to a job interview has not been discussed in the literature. Existing research has either focused on applying for the same position at a given organization several times (LaHuis et al., 2007) or on multiple applications without considering whether applications have been sent to different or the same functions within a single organization (Fernandez and Weinberg, 1997). Therefore, we distinguish consistent multiple applications (e.g. marketing and marketing) and inconsistent multiple application (e.g. marketing and finance) as well as internal and external job candidates. Our results show that sending consistent or inconsistent multiple applications decrease the invitation probability for internal candidates. However, sending consistent (inconsistent) multiple applications increases (decreases) the invitation probability to a job interview for external candidates. Our results are in line with literature on the categorical imperative (Zuckerman et al., 2003) and job applicant's behavioral consistency (Koellinger et al., 2015). Put differently, the often-requested functional flexibility is not valued by a large multinational corporation. Our results are not only relevant for job applicants but also for recruiters that deal with multiple applications. We here could only observe a specific firm data and their applicants. Of course one needs more diverse and rich data to make a general conclusion on the relationship between multiple applications and candidates' invitation probability. The antecedence and consequences of multiple applications deserve further investigations in future studies.

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Highlights:

1- We study multiple job applications (MA) within the same company.

2- MA are consistent if an applicant applies to the same functional area.

3- MA are inconsistent if an applicant applies to different functional areas.

4- Chances for a job talk decrease with inconsistent MA.

5- Chances for a job talk increase with consistent MA only for external candidates.

Appendix

Table A- Overview of share of applications (in percent)

	Single applications	Consistent multiple applications	Inconsistent multiple applications	Total
Functional areas				
Engineering/Technology	39.99	34.14	32.64	36.96
Supply Chain Management	34.11	34.94	35.40	34.60
Finance	8.75	18.89	7.97	10.70
Services	6.53	6.20	12.12	7.83
Project Management	2.93	0.29	2.76	2.33
Commercial	2.76	3.28	4.02	3.18
Information Technology	2.56	0.66	1.13	1.81
Product Line Management	1.21	1.60	3.83	1.93
Human Resources	1.07	0.00	0.13	0.61
Communications	0.08	0.00	0.00	0.05
Hierarchical level				
Hourly	2.11	2.92	1.07	2.03
Other salaried	14.13	13.57	16.13	14.50
Professional band	16.07	18.45	17.39	16.89
Leadership training programs	23.90	6.49	12.18	17.37
Leadership professional band	21.90	33.92	25.67	25.35
Senior professional band	21.14	24.51	27.06	23.29
Executive band	0.76	0.15	0.50	0.57

Labor market				
External	90.35	81.04	79.91	85.84
Internal	9.65	18.96	20.09	14.16
Degree of education				
Other	5.07	3.79	3.86	4.82
High school	6.02	5.11	5.79	5.90
Bachelor	29.02	25.57	28.10	28.53
Master	40.92	36.74	38.57	40.23
Doctorate	3.66	3.03	3.03	3.53
(missing)	15.31	25.76	20.66	16.99

Table B-Distribution of applications

Variable	Number of observations	Share of the number of observations	Invitation rate (in percent)
Single applications	3,553	54.52	9.51
Multiple applications	2,964	45.48	9.28
- Consistent	1,371	21.04	13.71
- Inconsistent	1,593	24.44	5.46
Total	6,517	100.00	9.41

Table C – Invitation probability for a job interview – robustness check.

Explanatory variables	Dependent variable Invited to job interview (0=No, 1=Yes)	
	External	Internal
Consistent applications	0.032***	-0.066*
	(0.011)	(0.039)
Inconsistent applications	-0.022***	-0.247***
	(0.006)	(0.050)
Controls		
Gender	Yes	Yes
Career level	Yes	Yes
Education	Yes	No
Field of studies	Yes	No
Pseudo R2	0.113	0.056
AIC	1854.61	1071.64
BIC	2101.51	1095.74
N (applications)	4902	917
N (applicants)	3429	502

Notes. Probit regressions reporting marginal effects, clustered by applicants. Robust standard errors are in parentheses. ***, **, * denote significance at the 1%, 5%, 10% level.