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Customer discrimination in the fast food market: a web-based experiment on a Swedish university campus

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Abstract

This paper presents the results of a study that examined customer discrimination against fictitious male and female food truck owners with Arabic-sounding names on a Swedish university campus. In a web-based experiment, students (N = 1,406) were asked, in a market survey setting, whether they thought it was a good idea that a food truck was establishing on their campus and of their willingness to pay for a typical food truck meal. Four names—male and female Swedish-sounding names and male and female Arabic-sounding names—were randomly assigned to food trucks. We found no evidence of customer discrimination against food truck owners with Arabic-sounding names. Participants were slightly more positive to a food truck establishment run by a male with an Arabic-sounding name than a male with a Swedish-sounding name.

Keywords: Customer discrimination; Self-employment; Immigrants; web-based experiment; Sweden.

Introduction

The share of the self-employment sector that consists of foreign-born individuals has increased during recent decades in several countries belonging to the Organization for Economic Co-operation and Development (OECD). A large body of literature has paid attention to self-employment and entrepreneurship among immigrants. The studies propose explanations for why there are differences in self-employment rates between immigrants and natives (Borjas 1986; Yuengert 1995; Fairlie and Meyer, 1996; Fairlie, 1999; Clark and Drinkwater, 2000; Hout and Rosen, 2000; Le, 2000; Hammarstedt, 2001, 2004, 2006; Constant and Zimmermann, 2006; Robb and Fairlie, 2009; Andersson and Hammarstedt, 2010; Clark, Drinkwater and Robinson, 2017). Self-employed immigrants may encounter certain obstacles in their businesses. Such obstacles include the existence of discrimination from customers, financial institutions, and suppliers. This study focuses on customer discrimination.

The social identity theory suggests that people categorize themselves in ingroups and outgroups based on various characteristics (Tajfel, 1970). When these groups are rooted, people tend to be positively inclined to their ingroup and negatively inclined to outgroups (Tajfel et al., 1971). The concept of customer discrimination, occurring when customers prefer to buy goods and services from their ingroup members, was first introduced by Becker (1957). The idea is that customers experience disutility from buying goods and services from an outgroup member which makes their transaction costlier when the seller is an outgroup member than when the seller is an ingroup member. Borjas and Bronars (1989) developed a theoretical model of customer

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discrimination and self-employment which suggests that self-employed members of a minority group may face worse economic outcomes (in terms of incomes and returns to abilities) than self-employed members of the majority group because of customer discrimination.

Empirical Studies from different countries have, directly or indirectly, documented customer discrimination. Most of these studies draw inferences on customer discrimination based on indirect approaches. Two early studies documented the existence of customer discrimination in professional sports. Kahn and Sherer (1988) found that in the U.S. National Basketball Association, home spectator attendance grew according to the percentage of white players on the field, which was interpreted as customer discrimination. Nardinelli and Simon (1990) found that baseball cards featuring non-white players commanded lower prices than cards featuring white players when they were sold in the U.S., which also suggested the existence of customer discrimination.

Neumark (1996) conducted a field experiment and found that women were discriminated against when they applied for jobs as waitresses in high-priced restaurants in Philadelphia. Neumark suggested that the positive relationship between the proportion of male guests and male waiters in the restaurants were driven by the existence of customer discrimination. In another study, Holzer and Ihlanfeldt (1998) documented customer discrimination using a survey among employers in four metropolitan areas in the U.S. They found that the ethnic composition of an establishment's customers affected the ethnic composition of those hired, especially in jobs that involved contact with customers. Moreover, Leonard, Levine and Guillano (2010) tested for customer discrimination in the U.S. by matching data from retail stores with data on the demographics of each store's community. The results showed some increase in sales when the workforce more closely resembled that of potential customers, but the effect was small in magnitude.

Using an online field experiment, Doleac and Stein (2013) was first to provide evidence of customer discrimination directly against the seller of a good. They examined customer discrimination by selling iPods through local online classified advertisements throughout the U.S. Each advertisement featured a photograph displaying a dark- or light-skinned hand holding an iPod. Their results revealed that black sellers received fewer as well as lower offers than white sellers.

Outside the U.S., there are, as far as we know, only two studies that have examined customer discrimination. In France, Combes et al. (2016) found that customer discrimination contributed to the low share of African immigrants employed in occupations involving customer contact. In a more recent study from Israel, Bar and Zussman (2017) documented customer discrimination against Arab workers in the market for labor-intensive services. Combining surveys, field data and natural experiments, they showed that Jewish customers preferred to receive services from firms employing Jewish rather than Arab workers. Further, they also found that customer preferences affected firms' hiring decisions.

Thus, the prior literature shows that customer discrimination does exist, in various forms and in various contexts. Empirical research testing for customer discrimination against self-employed members of a minority group, such as immigrants, is, however, limited. Only the study of Doleac and Stein (2013) examined customer discrimination against a seller directly. All other studies examined customer discrimination as a result of the ethnic or gender composition of the workforce in a business; i.e., customers discriminated against businesses who had employees that belonged to an undesired group of people. Moreover, most of the studies tested for customer discrimination using indirect approaches.



Hence, customer discrimination has been documented in previous research but knowledge regarding the extent to which customers discriminate against self-employed immigrants is scarce. In this study, we aimed to fill this knowledge gap by conducting a web-based experiment in order to investigate customer discrimination against self-employed immigrants with Arabic-sounding names in Sweden. For this purpose, we designed an original experiment in a specific context in order to make the experiment more meaningful and realistic for our participants. To our knowledge, this is the first study that experimentally tests for customer discrimination against self-employed people. In the experiment, we let students at a Swedish university campus participate in a market survey and answer questions about whether they believed a food truck establishment on the campus was a good idea. Furthermore, the students were also asked about their own willingness and their beliefs about other students' willingness to pay for a baguette and a kebab sold by the food truck.

We were able to study customer discrimination since four different names—one Swedish-sounding male name, one Swedish-sounding female name, one Arabic-sounding male name, and one Arabic-sounding female name—were randomly assigned to the sign of the food truck. This enabled us to study the extent to which there were differences between the different food truck owners regarding the extent to which the students were positively inclined to the food truck establishment. Furthermore, we examined if the students' willingness to pay varied according to the name of the food truck owner.

Our study contributes to the literature on customer discrimination since we conduct a direct test of customer discrimination against self-employed immigrants with Arabic-sounding names in the fast-food market. Our empirical study was conducted in Sweden, which is a suitable testing ground for such a study since self-employment among immigrants from this region has increased during recent decades. Official statistics on December 31, 2019, shows that almost 20 percent of Sweden's total population was born outside Sweden (Statistics Sweden, 2020). The share of immigrants originating from West Asia has increased during recent decades, and in 2018 almost 5 percent of Sweden's total population was born in countries in West Asia (Statistics Sweden, 2020). Furthermore, high self-employment rates in the retail, trade and restaurant sectors have been documented among immigrants from West Asia (Andersson and Hammarstedt, 2015; Aldén and Hammarstedt, 2017). Besides this, Sweden is also an interesting testing ground for this purpose because previous research has documented that self-employed immigrants from non-European countries report that they are discriminated against by customers, and also run higher risks of having bank loan applications rejected or being charged higher interest rates on such loans than self-employed natives (Aldén and Hammarstedt, 2016). Finally, previous research has shown that individuals with Arabic-sounding names are discriminated against in the labor market as well as in the housing market in Sweden (Carlsson and Rooth, 2007; Ahmed and Hammarstedt, 2008).

Our results revealed no customer discrimination against food truck owners with Arabic-sounding names. In fact, the respondents in the experiment were slightly more positive regarding a food truck run by male with Arabic-sounding name than by a male with Swedish -sounding name. We acknowledge that the external validity is limited, since our results are representative in an environment with relatively young and highly educated customers and for self-employed immigrants selling certain types of goods. Our results highlight the fact that customer discrimination may vary across different markets and underline the importance of more research in this area.

Experimental method

Participants

A total of 1,406 Swedish-speaking students at Linköping University voluntarily participated in the experiment, which was conducted in February 2018. Invitations to participate in the experiment were sent through the university's official student information email system. We only invited students from one of four campuses at Linköping University, Campus Valla, to participate in the experiment since it was framed specifically for this campus. Fifty-nine percent of the participants were women. Almost 11 percent reported that they were born outside Sweden, and the ages ranged from 18 to 68 years ($M = 25$, $SD = 6.52$).

Materials and Procedures

We constructed eight cases of small business establishments regarding which participants were asked to report their opinions. Participants were told that the purpose of the study was to gain knowledge about students' views and attitudes about various possible new establishments of small businesses, with sales directed toward students at Campus Valla, Linköping University. The type of businesses that were presented to the students were baguette food truck, kebab food truck, pasta food truck, salad food truck, corner shop, hairdresser, second-hand shop, and cinema. These cases were presented to participants in a random order. Two of these six cases (the baguette and the kebab food truck) were used for the purpose of this study and will be explained in detail below. The rest of the cases served as experimental filler in order to minimize detection risk.

In the baguette and kebab food truck cases, we first stated the nature of the business and presented participants with a picture of the food truck. In the case of the baguette food truck, we stated (English translation):

The food truck depicted below is planning to sell baguettes at Linköping University. You will be able to choose the content and toppings of your sandwich, such as cheese, ham, turkey, or tuna, yourself. We ask you to help us with the pricing of the baguettes.

In the case of the kebab food truck, we stated (English translation):

The food truck depicted below is planning to establish at Linköping University campuses. The food truck will prepare meals containing kebab with Swedish meat or falafel.

After the above statements, we asked participants three specific questions regarding each business case. First, we asked participants whether they thought the establishment of the particular food truck was a good idea or not. They had the option to answer yes or no to this question. Second, we asked participants to state their willingness to pay for a typical baguette sandwich and a kebab/falafel meal, respectively, including a drink, on a scale ranging from 0 to 100 SEK. Third, we asked participants to state what they believed other students in general would be willing to pay for a typical meal, including a drink, on a scale ranging from 0 to 100 SEK. The participants' answers to these three questions constituted our dependent variables.

For our main independent variables, we randomly manipulated the ethnicity and sex of the owner using the picture that depicted the particular food truck. In the case of the baguette food truck, we used the following food truck names to manipulate ethnicity and sex: Pelles Baguetter, Abduls Baguetter, Lottas Baguetter, and Fatimas Baguetter. Pelle and Lotta are typical Swedish-sounding



names while Abdul and Fatima are typical Arabic-sounding names. Further, Pelle and Abdul are typical male-sounding names while Lotta and Fatima are typical female-sounding names. Similarly, in the kebab food truck context, we used Jockes Kebabgrill, Annas Kebabgrill, Mohammeds Kebabgrill, and Sakinas Kebabgrill as food truck names. Here, Jocke and Anna have Swedish connotations and Mohammed and Sakina have Arabic connotations; Jocke and Mohammed are typical male names and Anna and Sakina are typical female names. The names used were chosen rather intuitively and arbitrarily; yet, with inspiration from names used in earlier field experiments on discrimination in the Swedish labor and housing markets (see, e.g., Carlsson and Rooth, 2007; Ahmed and Hammarstedt, 2008).

Some remarks are warranted regarding the names at this point. First, it is important remember that different names within an ethnic domain may elicit different responses from the respondents. Here, we used only one Arabic- and one Swedish-sounding names. Hence, we may over- or underestimate the difference in responses depending what other traits than ethnicity the chosen names might have signaled, such as social class, socio-economic status, religion, etc. Second, differences in responses generated by names may occur because of different underlying reasons, such as xenophobia, anti-Arab sentiment, Islamophobia, racism, nationalism, etc. We only measure the effect of having an Arabic-sounding name as compared to having a Swedish-sounding name to test the customer discrimination hypothesis. Our design did not allow us (nor was it our ambition) to identify, disentangle, and scrutinize the underlying factors behind differences in participants responses.

A remark on the type of food sold by the food trucks is also in order. We used two different types of cuisines, baguette and kebab/falafel, in order to test for customer discrimination. We considered a baguette sandwich as more of a neutral cuisine with neither Swedish nor Arabic associations. Kebab/falafel, however, has a clear West Asian association. The purpose of this was to scrutinize whether the context itself had any impact on the dependent variable and whether the nature of the context induced any potential ethnic and sex differences in outcomes. We did not have a predetermined hypothesis about whether food with Arab connotations would decrease or increase discrimination since it arguably could do both: it could reduce statistical discrimination (through beliefs about Arabs being better at making West Asian food than others) and boost taste-based discrimination (by increased animosity – owner Arab, food Arabic).

Moreover, we were prone to create cases which were as realistic as possible and close to what can be observed in Sweden. In the kebab/falafel case, therefore, we did not write that the meat was halal when the owner had an Arabic-sounding name (which would have been the sensible thing to do if the experiment was conducted in other countries, such as the U.K. or Germany). Writing out that you are selling halal meat is not common at all in Sweden. Most Muslim entrepreneurs (correctly) believe that Swedish people would not buy their food if the meat was halal. Indeed, there is a strong opinion against halal and kosher meats in Sweden partly because of animal rights movements as well as because people don't want to be involuntarily influenced by religion. Therefore, if we would have write out halal meat, we are most certain that we would have observed strong discrimination against food truck owners with Arabic-sounding names. However, such a design would not have represented the way Muslim restaurant owners actually act in Sweden. We chose, however, to write out that the meat was Swedish, which is something most entrepreneurs would want to flash with, since Swedish people are positively inclined to local products. It did, however, not rule out that that the meat could have been halal, even if we did not spell it out, since there are Swedish halal meats as well.

Upon reflecting on and completing the eight small-business establishment cases, participants answered a small set of questions related to background variables, such as age and sex. It took about 15 minutes to complete the entire experiment. The experiment was administered in Qualtrics. Complete instructions for the entire experiment are available upon request. The data is openly available in Zenodo at <https://doi.org/10.5281/zenodo.1966627>.

Results

Survey answers

Table 1 and Table 2 present the participants' answers regarding the food truck establishments. Both tables show small differentials regarding the name of the food truck owner. Regarding the establishment of a food truck selling baguettes, almost 86 percent of the respondents felt positive about a food truck opened by an owner with a Swedish-sounding name (male and female), while almost 89 percent of the respondents felt positive about a food truck opened by an owner with an Arabic-sounding name. As for the respondents' own willingness, and beliefs about others' willingness to pay, there were very small differences.

Table 1. Survey answers for the establishment of a food truck selling baguettes.

| | Share with positive answers | Reported individual willingness to pay for a baguette (SEK) | Reported individual willingness to pay (among individuals with positive answers) for a baguette (SEK) | Reported answer on others' willingness to pay for a baguette (SEK) | Number of individuals |
|------------------------------|-----------------------------|---|---|--|-----------------------|
| Swedish-sounding male name | 85.9 | 44.0 | 46.2 | 48.7 | 348 |
| Swedish-sounding female name | 85.9 | 44.6 | 46.1 | 48.2 | 333 |
| Arabic-sounding male name | 88.8 | 44.3 | 45.5 | 49.1 | 365 |
| Arabic-sounding female name | 88.3 | 44.2 | 45.8 | 48.3 | 360 |

Regarding the food truck selling kebabs, almost 90 percent of respondents felt positive about an establishment by a male with an Arabic-sounding name, while around 85 percent felt positive about an establishment by an owner with a Swedish-sounding male name. Somewhat more than 88 percent of the respondents reported that they felt positive about a food truck opened by a female with a Swedish- or Arabic-sounding name. Furthermore, the respondents also answered that their willingness to pay for a kebab was somewhat higher when the owner of the food truck was a female with a Swedish-sounding name than when the owner was a male with a Swedish-sounding name or a person with an Arabic-sounding name.

Thus, from our survey answers, we are not able to document any customer discrimination against self-employed individuals with Arabic-sounding names planning to establish a food truck on the university campus.



Table 2. Survey answers for the establishment of a food truck selling kebab.

| | Share with positive answers | Reported individual willingness to pay for a kebab (SEK) | Reported individual willingness to pay (among individuals with positive answers) for a kebab (SEK) | Reported answer on others' willingness to pay for a kebab (SEK) | Number of individuals |
|------------------------------|-----------------------------|--|--|---|-----------------------|
| Swedish-sounding male name | 85.5 | 56.6 | 58.1 | 49.2 | 345 |
| Swedish-sounding female name | 88.5 | 58.7 | 59.4 | 49.0 | 339 |
| Arabic-sounding male name | 89.7 | 55.6 | 57.3 | 48.3 | 378 |
| Arabic-sounding female name | 88.4 | 56.9 | 59.1 | 48.0 | 344 |

Estimation results

We estimated regression models in which the propensity of being positive toward the food truck opening, the individual's willingness to pay, and the individual's beliefs about others' willingness to pay constituted the outcome variables. The propensity of being positive toward the food truck establishment was estimated with the help of a linear probability model, in which the outcome variable took the value 1 if the respondent had answered that he/she was positive toward the food truck establishment and zero otherwise. The individual's willingness to pay and the individual's beliefs about others' willingness to pay (in its logarithmic form, SEK) was estimated with the help of OLS-regressions in which only individuals who had reported a positive value on the willingness to pay were included in the estimations.

All estimations included dummy variables for the name of the food truck owner (owner with a Swedish-sounding male name constituted the reference group). Our initial estimations only included these variables as explanatory variables. Moreover, we also conducted estimations that included a set of control variables. We included dummy variables for the name of the food truck owner (owner with a Swedish-sounding male name constituted the reference group). We controlled for the respondents' age, gender, if the respondent had a partner or not, if the respondent combined studies with work, the number of semesters that the respondent had studied at the university and whether the respondent was foreign-born or not.

The results for food truck establishments that were selling baguettes are presented in Table 3. The results without controls are very much in line with those presented in Table 1 and reveal no statistically significant differences between the names of food truck owners. Furthermore, the results remain stable when we add the set of controls in the estimations. Thus, our results do not reveal customer discrimination against self-employed individuals with Arabic-sounding names who are planning to establish a food truck selling baguettes on the university campus.

The results for the food truck planning to sell kebabs are presented in Table 4. In this case, the results indicate that the respondents are more positive toward a food truck established by an individual with a Arabic-sounding male name than toward a food truck established by an individual with a Swedish-sounding male name. The estimated differential amounts to somewhat more than 4 percentage points (the magnitude is similar to the differential presented in Table 2) and is

statistically significant at the 10-percent level. However, our results reveal no statistically significant differences between the other names of food truck owners in this regard.

Table 3. Estimates of the propensity of being positive toward the food truck establishment and willingness to pay for a baguette (standard errors within parentheses).

| | Positive answer | | Individual willingness to pay | | Others' willingness to pay | |
|---|---------------------------|---------------------------|-------------------------------|---------------------------|----------------------------|---------------------------|
| Constant | 0.859*** (0.018) | 0.992*** (0.142) | 3.733*** (0.022) | 3.958*** (0.174) | 3.853*** (0.018) | 4.112*** (0.140) |
| Swedish female | 0.000 (0.026) | 0.001 (0.026) | 0.039 (0.032) | 0.037 (0.032) | -0.007 (0.026) | -0.007 (0.025) |
| Arabic male | 0.028 (0.025) | 0.027 (0.025) | 0.031 (0.031) | 0.022 (0.031) | -0.004 (0.025) | -0.007 (0.025) |
| Arabic female | 0.024 (0.025) | 0.023 (0.025) | 0.019 (0.031) | 0.014 (0.031) | -0.019 (0.025) | -0.021 (0.025) |
| Age | | -0.007 (0.009) | | -0.012 (0.012) | | -0.016* (0.089) |
| Agesq | | 0.000 (0.000) | | 0.000 (0.000) | | 0.000 (0.000) |
| Female | | -0.041** (0.019) | | -0.079*** (0.023) | | -0.050*** (0.018) |
| Partner | | 0.018 (0.020) | | 0.014 (0.024) | | 0.033* (0.020) |
| Work | | -0.014 (0.019) | | -0.007 (0.767) | | -0.024 (0.019) |
| Semesters | | -0.002 (0.003) | | 0.001 (0.004) | | 0.009 (0.003) |
| Foreign born | | -0.001 (0.029) | | -0.145*** (0.036) | | -0.061** (0.029) |
| Number of individuals | 1,406 | 1,406 | 1,378 | 1,378 | 1,401 | 1,401 |
| R ² | 0.002 | 0.007 | 0.001 | 0.024 | 0.000 | 0.022 |
| Controls | No | Yes | No | Yes | No | Yes |
| H ₀ : Swedish female = Arabic male = Arabic female | $F = 0.74$ $p = 0.475$ | $F = 0.59$ $p = 0.553$ | $F = 0.21$ $p = 0.814$ | $F = 0.27$ $p = 0.764$ | $F = 0.20$ $p = 0.821$ | $F = 0.21$ $p = 0.811$ |

***) Statistically significant at 1-percent level. **) Statistically significant at 5-percent level. *) Statistically significant at 10-percent level.

Finally, our results reveal no statistically significant differences in the reported willingness to pay depending on the name of the food truck owner. Thus, our results reveal no customer discrimination against self-employed individuals with Arabic-sounding names. Instead, male self-employed immigrants seem to be at an advantage, since potential customers reported that they are slightly more positive toward a food truck establishment by an individual with an Arabic-sounding male name than by an individual with a Swedish-sounding male name.



Table 4. Estimates of the propensity of being positive toward the food truck establishment and willingness to pay for a kebab (standard errors within parentheses).

| | Positive answer | | Individual willingness to pay | | Others' willingness to pay | |
|--|-----------------------|-----------------------|-------------------------------|-----------------------|----------------------------|-----------------------|
| | | | | | | |
| Constant | 0.855*** (0.017) | 1.025*** (0.138) | 4.016*** (0.017) | 4.257*** (0.132) | 4.075*** (0.017) | 4.357*** (0.129) |
| Swedish female | 0.030 (0.025) | 0.031 (0.025) | 0.035 (0.024) | 0.023 (0.024) | 0.004 (0.024) | -0.010 (0.023) |
| Arabic Male | 0.042* (0.024) | 0.043* (0.024) | 0.002 (0.024) | -0.003 (0.023) | -0.005 (0.023) | -0.012 (0.023) |
| Arabic female | 0.029 (0.025) | 0.030 (0.025) | 0.007 (0.024) | 0.003 (0.024) | -0.010 (0.024) | -0.014 (0.023) |
| Age | | -0.011 (0.009) | | -0.013 (0.009) | | -0.016* (0.009) |
| Agesq | | 0.000 (0.000) | | 0.000 (0.000) | | 0.000 (0.000) |
| Female | | -0.024 (0.018) | | -0.092*** (0.017) | | -0.077*** (0.017) |
| Partner | | 0.033* (0.019) | | -0.004 (0.018) | | -0.006 (0.018) |
| Work | | 0.036** (0.018) | | 0.017 (0.018) | | -0.001 (0.017) |
| Semesters | | -0.001 (0.003) | | 0.006** (0.003) | | 0.012*** (0.003) |
| Foreign born | | -0.015 (0.003) | | -0.126*** (0.027) | | -0.091*** (0.026) |
| Number of individuals | 1,406 | 1,406 | 1,377 | 1,377 | 1,397 | 1,397 |
| R2 | 0.002 | 0.009 | 0.002 | 0.046 | 0.000 | 0.046 |
| Controls | No | Yes | No | Yes | No | Yes |
| H0: Swedish female = Arabic male = Arabic female | F = 0.18 p = 0.834 | F = 0.19 p = 0.824 | F = 1.12 p = 0.327 | F = 0.66 p = 0.517 | F = 0.18 p = 0.833 | F = 0.01 p = 0.988 |

***) Statistically significant at 1- percent level. **) Statistically significant at 5-percent level. *) Statistically significant at 10-percent level.

Discussion

We conducted an experiment in order to study customer discrimination against self-employed immigrants with Arabic-sounding names active in the fast-food market. The experiment was conducted at a Swedish university campus. Students were asked about their opinions about a planned food truck opening and also about their own willingness, and their beliefs about others' willingness to pay for goods sold by the food truck.

Four names, one Swedish-sounding male name, one Swedish-sounding female name, one Arabic-sounding male name, and one Arabic-sounding female name, were randomly assigned to the food truck. Our results revealed no customer discrimination against food truck owners with Arabic-sounding names. Furthermore, no difference was found between male and female food truck owners. The only statistically significant result that emerged from the experiment was that the

respondents in the survey felt slightly more positive toward a food truck established by a male with an Arabic-sounding name than toward one established by a male with a Swedish-sounding name.

Our results differ from the results in previous research regarding customer discrimination, since most previous studies documented the existence of customer discrimination. However, the external validity in these types of studies is limited since they are only representative of a certain group of customers in a certain market. Thus, one conclusion from our study is that we have shown that the existence of customer discrimination is likely to vary across different markets and in different contexts.

We acknowledge that the external validity is limited in our study as well. It is reasonable to believe that customer discrimination against self-employed immigrants varies across different markets in Sweden. It is also likely that the existence of customer discrimination affects different groups of immigrants differently, and that more research in this area therefore is needed.

Our results are also of interest for Sweden's integration policy. The share of self-employed immigrants originating from countries in West Asia has increased during recent decades. Previous research has shown that individuals with Arabic-sounding names are discriminated against in the Swedish labor and housing market (Carlsson and Rooth, 2007; Ahmed and Hammarstedt, 2008). Furthermore, self-employed immigrants from non-European countries run higher risks of having loan applications turned down by banks and are also charged higher interest rates on bank loans than self-employed natives. Besides this, they also more often than natives report that they are discriminated against by banks, customers, and suppliers (Aldén and Hammarstedt, 2016). However, our study reveals no existence of customer discrimination against self-employed immigrants with Arabic-sounding names. Therefore, more research in this area is clearly needed in order to improve our understanding of immigrant self-employment in Sweden and to identify which obstacles certain groups of self-employed immigrants encounter in their businesses.

Our study also contributes methodologically; i.e., to the various ways researchers can test for discrimination. We developed a new experimental design, simple enough to be used for different markets and environments. Testing for discrimination is a difficult task. We need to be innovative, and develop new methodologies beyond audit studies in order to study discrimination from different angles and in order to accumulate knowledge of causes, consequences, and remedies of discrimination.

Future studies should extend and modify the experimental design of this study to check the robustness of the results. First, we only included one neutral and one West Asian related cuisine. Future studies should also include cuisines that are typical Swedish. This would allow researchers to study how people respond when ethnicity of the business owner does not match the ethnicity of the food he or she serves. Second, future studies should use a variety of names. Randomly picking a name from a pool of names would generate more reliable estimates of response differences since the problem of names signaling other traits than just ethnic background would become less problematic with randomization of different names with different societal and economic loadings. Third, future studies should study discrimination against other groups than just people with Arab-sounding names.

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