"From Vows to Ventures: How Marriage, Religion, and Gender Shape Entrepreneurial Intentions and Outcomes"

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Abstract

This research investigates the influence of marriage on entrepreneurial intentions and success in the Netherlands, and how this relationship is influenced by gender and religion. Survey based data was retrieved from the Longitudinal Internet Studies for the Social Sciences (LISS) panel. Logistic regressions and Ordinary Least Squared regressions were performed to find relationships between marriage, gender, religion, and entrepreneurship. The analysis shows many insignificant results but find a correlation between gender and entrepreneurial intentions and success. Also, an interacting relationship between gender and marriage on entrepreneurial income was found. The conclusion is that men have higher entrepreneurial intentions and success, and that marriage enlarges this success even more for male entrepreneurs.

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1. Introduction

Entrepreneurship is an essential component of economic growth and development. It is a driver of job creation: entrepreneurs create new businesses, which can generate new jobs. (Baumol, 1996). The decision to become an entrepreneur is influenced by a number of elements, including social, economic, cultural, and psychological ones (Aldrich & Zimmer, 1986). Marriage is one of the most important elements, and it can have both favorable and unfavorable consequences on entrepreneurship; especially women have trouble choosing entrepreneurship due to marital expectations placed on them (Dewitt et al., 2022). Additionally, religion can have an impact on how people view entrepreneurship, what motivates them to establish a business, and how the gender roles in marriage are distributed. This may limit the prospects for women to pursue entrepreneurship (Dakhli & De Clercq, 2004).

So, marriage can have different effects on entrepreneurship for men and women, and religion can influence this relationship. Entrepreneurship is a career path that is becoming more and more popular and is recognized as a major force behind economic development. Furthermore, the institution of marriage holds great importance in many cultures, and it can have a profound effect on people's personal and professional lives. Therefore, it's crucial to investigate whether there is a connection between marriage and entrepreneurship and how gender and religion may affect this relationship. Consequently, the main research question is:

How does marriage influence entrepreneurial intentions and outcomes in the Netherlands and do these effects differ for gender and religion?

This study will have a specific focus on the Netherlands, as entrepreneurship among both men and women has increased significantly there. From 2003 to 2019, the number of self-employed women rose by 94%, while the number of self-employed men increased by 63% (Central Bureau for Statistics, 2020a). However, despite this growth, women still only make up 37% of the self-employed population. The Netherlands also has a unique combination of high female labor participation rates and a large number of part-time workers. Approximately 75% of women in the country participate in the labor market, and of this group, 73% work part-time (Central Bureau for Statistics, 2020b). These figures are notably higher than those found

in other countries, making an investigation into the relationship between gender, marriage, religion, and entrepreneurship in the Netherlands, particularly relevant and distinctive.

It is crucial to define the different aspects of the research question. The main focus of this study is entrepreneurship, which can be defined as *"the activity of setting up a business or businesses, taking on financial risks in the hope of profit." (*Oxford Dictionary). Entrepreneurship will be measured with two concepts: *entrepreneurial intentions* and *entrepreneurial outcomes*. The first concept refers to the decision to become an entrepreneur. This paper will follow Parker's (2009) measurement of entrepreneurship: self-employment.

The second concept is the outcome of these entrepreneurial efforts. This will be measured in terms of income out of self-employment; this way it measures the success. It is important to measure both intentions and outcomes because individuals may have the intention to achieve entrepreneurial success but lack the necessary time, as in the case of married individuals. Examining both concepts will enable the study to investigate whether the relationship between marriage, religion, and gender differs significantly across the measures of entrepreneurship.

This research will use data from the Longitudinal Internet Studies for the Social Sciences (LISS) panel; this dataset contains survey-based data on a diverse group of Dutch individuals. The first dependent variable used is a proxy of entrepreneurial intentions, self-employment, and the second one is income from self-employment as the measurement of the outcomes. To measure entrepreneurial intentions, logistic regression is used to determine the log-likelihood of becoming an entrepreneur. These logistic regressions start with only *Marriage* as the explanatory variable, followed by the controls. Eventually, the other explanatory variables *Gender* and *Religious* are included as well as interactions between *Marriage* with *Gender* and *Religious*. To measure the effects on entrepreneurial income, Ordinary Least Squares regressions are run with the same explanatory variables and controls.

The findings from this study are limited. No significant effects from marriage or religion on entrepreneurial intentions were discovered. Gender, however, did have an impact on both entrepreneurial intentions and outcomes; these are higher for males. Also, when gender interacts with marriage, this positive correlation between being a married male and entrepreneurial outcomes was discovered. This relationship was not significant regarding entrepreneurial intentions.

2. Literature Review

In the following chapter, the most relevant literature regarding the effects of marriage on entrepreneurial intentions and outcomes will be reviewed, as well as the moderating or augmenting effects gender and religion can have on this relationship.

2.1 Marriage

Entrepreneurship is an important driver of economic growth and development, creating employment opportunities and promoting innovation (Shane & Venkataraman, 2000). Various factors influence the decision to become an entrepreneur, including social, economic, cultural, and psychological factors (Aldrich & Zimmer, 1986). One of the significant aspects that has been identified to influence entrepreneurship is marriage. Some studies suggest that marriage can have a positive impact on entrepreneurship, but others argue that it can hinder entrepreneurial activities, particularly for women (Brush & Hisrich, 2009; Sturges & Guest, 2004).

2.1.1   Marriage and Entrepreneurial Intentions

This section will display theories on how marital status can influence the choice to pursue entrepreneurial activities, and thus become self-employed. The impact of marriage on entrepreneurship can be both positive and negative. One of the most common positive views is the resource-based one, which suggests that marriage can provide entrepreneurs with critical resources such as financial, emotional, and social support (Foss, 2011). Another theory, the work-family enrichment theory as explained by Greenhous and Powel (2006), demonstrates how the quality of family life can improve the quality of work life. A positive family environment created by marriage can offer additional support to start entrepreneurial activities. Also, having a spouse that has a stable salary gives financial security. Which, in its place, can positively influence the chances of becoming an entrepreneur (Molina et al., 2016).

However, marriage can also negatively influence the choice to become an entrepreneur. This is mostly due to the responsibilities in marriage. Marital demands can interfere with work-related duties (Waumsley, et al., 2010). This relationship would also explain why married people are more reluctant to become entrepreneurs. Woods et al. (2020) highlight the fact that people in marriage are more risk averse as they may become more

cautious to ensure financial stability and security for themselves and their spouse. This stability focus can reduce entrepreneurial intentions. Aligning one's personal and professional goals with that of a spouse is frequently a requirement for marriage. Sometimes people choose to put their partner's goals first or choose a more secure career path to provide for their family (Hyseni Duraku et al., 2020). This might result in less emphasis being placed on entrepreneurial activities.

2.1.2 Marriage and Entrepreneurial Outcomes

After the decision of becoming an entrepreneur, the success of this entrepreneurship could also be affected by marriage positively or negatively. Firstly, knowledge and information about business ownership and conditions at work can be shared easily and effectively between spouses (Parker, 2008), and these knowledge spillovers can positively influence the success of entrepreneurs. Especially when a spouse's skills are complementary to those of the entrepreneur, these effects can have a great influence. Also, financial resources are frequently combined during marriage, which can help raise more money for starting or growing a business (Christiansen, 2015). A financial safety net can be created through joint savings, credit access, and shared income, which can also boost the likelihood of starting a successful business. Furthermore, the earlier mentioned marital responsibilities might also cause a more thorough pre-entry evaluation; one will only pursue entrepreneurship if there are large chances at success, and therefore their outcomes could be more positive (Schiller & Crewson, 2007). Lastly, spousal support can positively influence success. Werbel and Danes (2010) state that this support from the spouse can help the entrepreneur achieve better business results, such as higher business performance, increased job satisfaction, and improved well-being.

Other aspects could negatively influence the success of married entrepreneurs. The first is the flip side of this view on spousal support. If a spouse does not have the same views on the goals and risks of the company as the entrepreneur, this can harm its success (Van Auken & Werbel, 2006). Secondly, marital quibbles on time management and work-life balance could also harm the success of the entrepreneur (Adisa et. al, 2019); less time and shorter hours are a result and so is the chance of a profitable business. Risk aversion and the need for financial stability, as discussed in section 2.1.1, could also negatively influence the

outcomes of the business since a married person might be less willing to take risks due to the financial obligations of the marriage (Woods et al. 2020).

2.1.3 Hypothesis

Based on the discussion above, it can be inferred that married individuals tend to have lower entrepreneurial intentions but higher incomes if they decide to embark on an entrepreneurial path. The influence of marriage on entrepreneurship is multifaceted. While marriage can provide valuable resources, support, and financial security, it also brings responsibilities that may interfere with entrepreneurial pursuits. Married individuals often prioritize stability and financial well-being, which can make them more risk-averse and less inclined to pursue entrepreneurship. However, if married individuals do choose to become entrepreneurs, they can benefit from shared knowledge, combined financial resources, and spousal support, leading to potentially higher income and greater business success. Therefore, the following hypothesis was formulated:

Hypothesis 1: Married people have lower entrepreneurial intentions, but higher success if they do decide to become an entrepreneur.

In this paper, entrepreneurial intentions are measured by actual entrepreneurial actions, not thoughts. This means that the research regards individuals who are in fact self-employed, as this is the most well-known measurement of entrepreneurial intentions (Parker, 2009). For entrepreneurial success, the income derived from self-employment will be used as the quantification, as grounded in classic rational economic theory.

2.2 Gender

In this section, the influence of gender on entrepreneurship will be assessed. In the first subsection, theories about the relationship of gender alone on entrepreneurial intentions and outcomes will be discussed. After that, the interactions between gender, marriage, and entrepreneurship are discussed.

2.2.1   Influence of Gender on Entrepreneurship

There are many views on how gender influences entrepreneurship, but the most prevalent one highlights how women face additional barriers when starting a business due to gender bias and discrimination (Swartz & Amatucci, 2018). The success of women in their endeavors can be influenced by discrimination as well. According to Petrongolo and Ronchi (2020), the gender wage gap is largely influenced by the presence of part-time female workers, and a similar effect could potentially be observed in the outcomes of female entrepreneurs. Due to these discriminations, women are more often discontent with their current employment, which causes them to become self-employed (Heilman & Chen, 2003).

Dwyer et al. (2002) find that women are more risk-averse than men, even if they have an equal level of experience and skills. A risk-taking attitude is positively associated with entrepreneurial intentions, but not necessarily with success (Zhao et al., 2010). Combining these two views, men are more likely to become entrepreneurs, but there is no evidence that they are in fact more successful due to their risk-taking attitude.

Another view highlights that women have access to gender-based networks and support. Brush et al. (2009) mention the challenges females face in their entrepreneurial endeavors and the female support networks that arose from this. These gender-based networks, which men do not have access to, can positively impact entrepreneurial success (Cooper & Artz, 1995).

2.2.2   Gender, marriage, and entrepreneurship

The way gender, marriage, and entrepreneurship interact, mostly has to do with the different gender roles in marriage. The traditional gender division of labor in marriage can influence the expectations to assume domestic responsibilities; often women are expected to take on a larger role. This can affect their ability to pursue their entrepreneurial intentions (Jennings & Brush, 2013; Winn, 2005). These responsibilities result in work-family conflict more often for females. They need a more flexible work schedule, support from their spouse, and for example, full daycare to become successful entrepreneurs (Kim & Ling, 2001). According to Caputo and Dolinsky's (1998) study, women who have husbands who are successful entrepreneurs are more likely to pursue entrepreneurship themselves. This effect is not due

to the financial security of the husband's income, since this relationship does not exist when the spouse has a good income derived from employment. This means that the decision to follow an entrepreneurial path is significantly influenced by the support and understanding that one receives from a spouse.

However, currently, gender role conversion takes place within households. The traditional partner division, where the male makes money and the female devotes herself to domestic work, is becoming less common (Freguja et al., 2007). Subsequentially, men get more responsibilities in the household, which in turn also impairs them to pursue entrepreneurial activities. This way, marriage can also have a mitigating effect on the effort men can put into their businesses.

2.2.3 Hypothesis

Gender plays a significant role in entrepreneurship, with women facing additional barriers and discrimination when starting a business. Women's risk-averse nature, combined with societal expectations and the traditional gender division of labor in marriage, can hinder their entrepreneurial intentions. However, women may benefit from gender-based networks and support. It is important to note that gender roles within households are evolving, with men taking on more responsibilities, which can also limit their ability to pursue entrepreneurship. However, it is not yet sure if these effects are yet visible since these developments are relatively new. The decision to become an entrepreneur is influenced by the support and understanding received from a spouse. Overall, gender and marriage have complex interactions that impact entrepreneurial outcomes for both men and women. However, in terms of entrepreneurship, from the discussed, women seem most impaired by social norms and their character traits. The literature provides no evidence that married women are less successful compared to married men and therefore the following hypothesis is deducted:

Hypothesis 2: Married women are less likely to become entrepreneurs, but their entrepreneurial success is not smaller than that of married men.

2.3 Religion

In this section, theories about the effects of religion on entrepreneurship will be assessed, as well as how it interacts with marriage. In the Netherlands, 42,8% of the population considers themselves religious. The biggest religions are Catholicism (18,2%), Protestantism (13,2%), and Islam (5,6%) (Houben, 2023). Even though many differences exist between religions, this paper focuses on the institution of religion.

2.3.1 Influence of religion on entrepreneurship

Religion is another important factor that can influence the relationship between marriage and entrepreneurship. Previous research has shown that religion can affect people's attitudes toward entrepreneurship and their motivation to start a business (Miller et al., 2012; Autio & Acs, 2010). Religious institutions frequently offer a moral and ethical framework that can influence how entrepreneurs behave and make decisions. Religion may encourage sincerity, morality, and social responsibility, all of which can support ethical business conduct and long-term successful entrepreneurship (Dodd & Gotsis, 2007).

Religion can also motivate people to match their entrepreneurial endeavors with their religious principles and values. This can result in purpose-driven entrepreneurship, where individuals are inspired to improve society, meet social needs, or carry out a religious mission (Barentsen., 2019). This purpose-driven entrepreneurship can result in a more viable business.

Merino (2014) mentions that social support networks and a sense of belonging are frequently stimulated by religious communities. For aspiring entrepreneurs, these networks can provide direction, mentorship, and access to resources, which positively affects the success of a business (Stuart & Sorenson, 2005).

Religious people, however, are in general more risk-averse to financial risk than non-religious people (Noussair et al., 2013). Some religious practices and beliefs may value tradition over innovation and risk-taking, two key components of entrepreneurship. These two notions negatively influence entrepreneurial intentions (Zhao et al., 2010).

Especially if entrepreneurial activities do not align with religious teachings and contradict the learned values, individuals might not follow the best or intended path, due to their strong religious values (Phipps, 2012). This could heavily impair the success of the undertaking.

2.3.2 Religion, marriage, and entrepreneurship

The effect that religion has on marriage, is most visible in the strict expectations from marriage, which in their place affect the entrepreneurial capabilities. Firstly, religion can also influence the gender division of labor in marriage and the extent to which men and women are expected to engage in entrepreneurial activities (Dakhli & De Clercq, 2004). In particular, some religious traditions have more conservative gender roles, which may limit women's opportunities for pursuing entrepreneurship (Belk, 2014). It is, thus, clear that religion also interacts with gender.

For couples in a marriage, religion frequently provides a shared set of moral standards, values, and principles. These shared values may act as the basis of their relationship, directing their choices, actions, and perspectives on essential aspects of life like entrepreneurship (David & Stafford, 2015). Spousal support, as previously mentioned, can aid the entrepreneur in achieving better business outcomes (Werbel & Danes, 2010).

2.3.3 Hypothesis

Religion and marriage have a significant influence on entrepreneurial intentions and success, but their impact is not always positive. Being a married religious individual can have a negative effect on entrepreneurial aspirations and outcomes. Religious practices and beliefs, which prioritize tradition over innovation and risk-taking, can discourage individuals from pursuing entrepreneurial endeavors. The strict expectations and conservative gender roles associated with certain religious traditions may limit opportunities for married individuals, particularly women, to engage in entrepreneurship. Additionally, the shared moral standards and values within religious marriages can redirect focus away from entrepreneurial pursuits, potentially hindering the success of entrepreneurial ventures. Therefore, the last hypothesis is as follows:

Hypothesis 3: Married religious individuals have lower entrepreneurial intentions and success.

3. Data

3.1 Data collection

The data was retrieved from the Longitudinal Internet Studies for the Social Sciences (LISS) panel. The panel consists of approximately 7,500 individuals from 5,000 households. It includes individuals from all age groups, regions, and socio-economic statuses. The members of the panel complete monthly questionnaires about many types of subjects; they receive a monetary reward for this. People are invited to join the panel, by the Central Bureau of Statistics, it is thus not possible to apply yourself. This removes a part of the selection bias caused by the monetary reward, however, from the selected people the reward might influence some people more than others; people with lower incomes are more incentivized by the monetary rewards. The highest incomes are expectedly not influenced by a relatively small fee and therefore I expect that the panel data is somewhat biased by this.

Once the panel is established, panel members are invited to participate in surveys on a regular basis. While the LISS panel aims to retain the same individuals over time, attrition can occur due to various reasons, such as panel members withdrawing or becoming inactive. To compensate for attrition and maintain a representative sample, new panel members are recruited periodically. People who do not have access to the internet or a computer are provided with access, so all the chosen participants can in effect answer the questionnaires. To access the panel data, one must register and sign the statement.

The surveys are held yearly. This study will use the surveys in the so-called "Wave 14" which were held between 07/06/2021 and 27/07/2021. The more recent "Wave 15" is not available for all necessary datasets, so, therefore, the data from 2021 instead of 2022 was chosen. After merging these datasets, the sample consists of 4743 observations.

3.2 Variables

3.2.1   Dependent variables

The data analysis will be split into two parts since two different dependent variables will be used. First, the research will focus on entrepreneurial intentions and how these are influenced by marriage, gender, and religion. Self-employment is the most widespread

measurement of entrepreneurship (Parker, 2009). The variable *primary occupation* will be used for the assessment of entrepreneurship, where all types of self-employments will be considered as having entrepreneurial intentions. These are the people under category 3: *autonomous professional, freelancer, or self-employed.* People who are not in any type of employment will be disregarded.

The second analysis will focus on the success of entrepreneurs and how this interacts with marriage, gender, and religion. To test the success, the net income will be used as a proxy. The variable *Personal gross monthly income in Euros* is used to measure this. In this part, we regard only the self-employed individuals and how much income they make from their independent employment.

3.2.2 Explanatory variables

This paper tries to test the effects and interactions of three different explanatory variables: marriage, gender, and religion. These variables have been extensively reviewed and explained in the literature review but will shortly be described for clarity reasons. To begin with marriage, which refers to the official marriage contract between two individuals. This paper specifically regards marriage and not people who have a partnership agreement or any other type of commitment. Gender also is perceived as the most basal form of this concept: sex, which can be divided into male and female. Finally, many religions exist in the Netherlands, but the choice has been made to only regard religious or not religious. The interest of this paper is religion as an institution and not religion-specific differences.

3.2.3 Control variables

It is essential for the validity of the results to control for other factors that can influence the relationship between entrepreneurship and the explanatory variables. This subsection mentions the chosen control variables together with theoretical justification.

The first control variable will measure if the individual has *children*. Waumsley et al. (2010) mention that having kids often is negatively associated with entrepreneurial intentions

and success. This research does not take the number of children the individual has into account, only if they have any children or not.

Secondly, *age* can heavily influence entrepreneurial intentions. Kautonen et al. (2014) found strong correlations between age and self-employment. Age is also correlated with entrepreneurial success, especially when regarding women (Zhao et al. 2021). Consequently, this variable will also be controlled for. This research only regards people aged 18-75 due to two reasons. Firstly, Dutch law prohibits people under the age of eighteen to get married. Secondly, the CBS (2023) defines the labor force as people aged 15-75.

Dickson et al (2008) find strong evidence that entrepreneurial success is influenced by educational level. Even though they could not prove that it also influences the likelihood to become an entrepreneur, it is still important to control for the *educational level* of the respondents. The educational level will be split into two levels: tertiary education and no tertiary education. Tertiary education in the Netherlands consists of higher vocational education (HBO) and academic education (WO).

3.3 Variables in the data

The variables described need to be selected from the data and then transformed in such a way that they can be used for the data analysis. Table 1 shows how this was done for the dependent, explanatory and control variables. Table 2 displays the summary statistics for the numerical variables. For the final data analysis, two data frames are created. The first data frame contains all the columns except for "Income". All *NA* values are removed, and this set consists of 4120 observations. The second data frame only contains the self-employed respondents. From this data frame the, *NA* values are also removed. The remaining dataset is relatively small: it has 132 observations.

Table 1

Variable Description

Variable name[a]	Description	Encryption
cw21n525 (Entrepreneur)	Categorical variable containing types of (self) employment.	This variable will be transformed to binary; 1 if an individual is self-employed a 0 if someone is in paid employment.
brutoink (Income)	Numerical variable with the Personal gross monthly income in Euros.	Not transformed. Since sharing information is voluntary "-13" denotes missing data.[b]
geslacht (Gender)	Binary variable containing gender.	A value of 1 means male, a value of 0 means female
cr21n134 (Religious)	Categorical variable containing religious upbringing.	Transformed to binary: 1 meaning religious, 0 meaning non-religious, and "I don't know" is discarded.[c]
burgstat (Married)	Categorical variable containing civil status.	Transformed to binary: 1 means married. 0 means not married.
cf21n454 (Children)	Numerical variable containing number of children of the respondent.	Transformed to binary: 1 means the respondent has kid(s), 0 means that the respondent does not have any kids.
leeftijd (Age)	Numerical variable containing the age of the respondent.	Values lower than 18 and higher than 75 are removed.
cw21n005 (Education)	Educational level containing 9 different possibilities	Transformed to binary: 1 means the individual attended tertiary education, 0 means otherwise.

[a] The first name is the variable name in the dataset, the name between brackets will be used in the remainder of the report.

[b] 1,649 respondents have missing data. These observations will not be used when measuring the entrepreneurial success.

[c] Only 27 respondents (0.07%) answered "I don't know", therefore selection is minimal.

3.4 Descriptive statistics

In this section, I will provide the descriptive statistics of the data. Table 2 displays the statistics for the entire dataset.

Table 2

Summary statistics complete dataset

Variable	Mean	SD	Min	Max	NAs
1. Entrepreneur	0.0511	0.2249	0	1	12
2. Income	2,765	2,109.85	0	28,000	1,649
3. Gender	0.4607	0.5000	0	1	0
4. Religious	0.6197	0.4878	0	1	27
5. Married	0.5237	0.4992	0	1	0
6. Children	0.6641	0.4754	0	1	4
7. Age	51.7	15.8211	18	75	0
8. Education	0.4036	0.4991	0	1	0

These statistics give some valuable insights into the distribution of the data. First, it is visible that many observations have missing values for the *Income* variable. This could drastically diminish the sample size of the regressions that will be run having *Income* as the dependent variable. Most of the binary variables are relatively well distributed. The means are all a bit above or below the 50/50 distribution. For example, there are some more females than men in the dataset: if Gender is equal to 0, the respondent is male. The statistics show that 46% of the respondents are male. The other binary variables can be interpreted in the same fashion.

The most notable observation from the summary statistics is the fact that the proportion of the data that is engaged in entrepreneurial activities is only 5.11%. This could have effects on the statistical power of the regressions that will be run. Since the group of entrepreneurs is this small, a balancing test was performed. This means that the following regression was run to assess if the variables in the dataset significantly differ for entrepreneurs

and non-entrepreneurs. Y_k stands for every different control or explanatory variable that is included in the model.

$$Y_k = \beta_0 + \beta_1 Entrepreneur + \varepsilon_k$$

(1)

Table 3 shows the output for these regressions. The coefficient of *Entrepreneur* shows the difference in means for *Entrepreneur* is 1 and *Entrepreneur* is 0 for the specific dependent variable. If this coefficient is significant, the difference is significantly different from zero between entrepreneurs and non-entrepreneurs. This means that there is no significant difference in the number of religious people, married people nor age distribution between the target group and non-target group. However, these differences are seen in gender and education. The target entrepreneur group has slightly more men, and more tertiary educated individuals. The latter is especially statistically significant.

Table 3

Balancing test regression output

	Dependent variable:				
	Gender	Religious	Married	Age	Education
	(1)	(2)	(3)	(4)	(5)
Entrepreneur	0.070*	−0.018	0.006	0.248	0.163***
	(0.036)	(0.035)	(0.036)	(1.149)	(0.035)
Constant	0.457***	0.622***	0.525***	51.771***	0.397***
	(0.008)	(0.008)	(0.008)	(0.258)	(0.008)
Observations	4,120	4,120	4,120	4,120	4,120
R^2	0.001	0.0001	0.00001	0.00001	0.005
Adjusted R^2	0.001	−0.0002	−0.0002	−0.0002	0.005
Residual Std. Error (df = 4118)	0.498	0.485	0.499	16.108	0.490
F Statistic (df = 1; 4118)	3.839*	0.260	0.031	0.047	21.769***

Note: $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

For the second part of the analysis, comparing the income of entrepreneurs, we need to delete all the NA values for Income, so we get different distributions in this data. Every individual in this dataset had a positive value of 1 for the proxy of entrepreneurial intentions. In Table 4, it is visible that eliminating the missing values for *Income* does not drastically change most of the distributions of the variables. As expected from the balance tests in Table 3, the only means that changed a lot are those of *Gender* and *Education*.

For this subset of the data, graphs were created to compare the mean income per characteristic. Figure 1 clearly shows that in the data, the mean income of women (*Gender* = 0) is on average quite a lot lower than that of men (*Gender* = 1). The graphs for the other variables can be found in the appendix. Marriage and having children also display differences in mean income; individuals in the dataset who are married appear to have a higher income, and individuals with children a lower average income. For religion, on the other hand, no significant differences can be observed. The average income differs per age group, older age groups tend to have higher incomes. However, there is no trend visible, so due to the small number of observations this could be due to individuals in the groups with extremely high incomes. These observations cannot prove any relationships, it is only a representation of the distribution of the characteristics in the dataset. The methodology part will explain how the hypotheses will be tested.
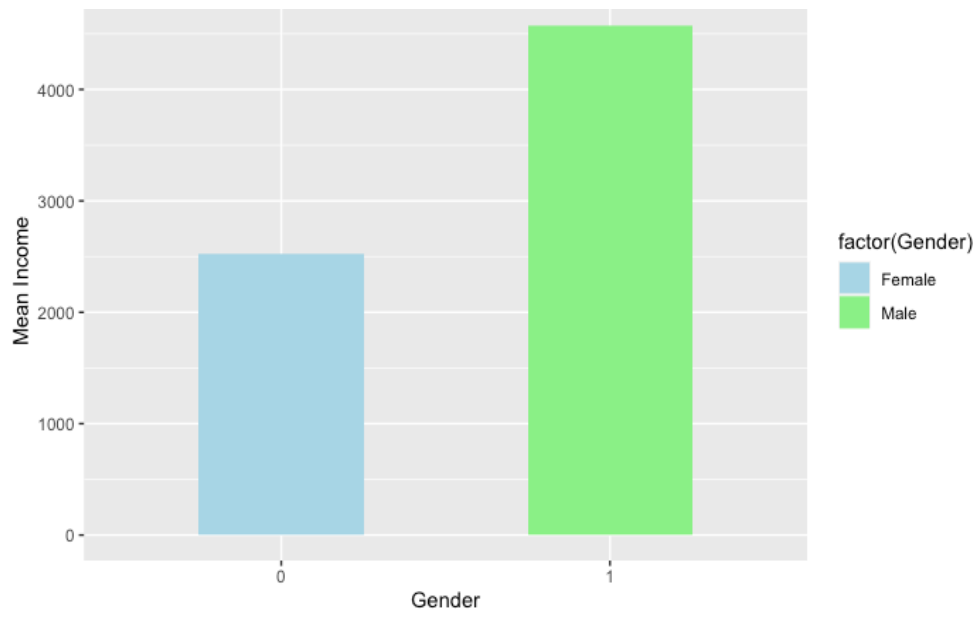
Table 4

Summary statistics entrepreneurial success

Dependent variable = Income				
N = 132				
Variable	*Mean*	*SD*	*Min*	*Max*
Income	3,599	3,211	0	22,000
1. Gender	0.5227	0.5013	0	1
2. Religious	0.6136	0.4888	0	1
3. Married	0.5227	0.5014	0	1
4. Children	0.6667	0.4732	0	1
5. Age	51.39	12.5094	22	74
6. Education	0.6515	0.4783	0	1

Figure 1

Mean entrepreneurial income for gender

4. Methodology

To answer the research question, multiple regressions will be performed. All regressions in this section will be run for both entrepreneurial intentions and entrepreneurial success as the dependent variable. However different types of regressions are needed since the dependent variables are not distributed equally. To test the effects of the explanatory variables on the income from self-employment Ordinary Least Squares (OLS). This is possible since according to the performed Shapiro-test, *Income* is normally distributed. The entrepreneurial intention proxy for self-employment is a binary variable; therefore, logistic regression is needed.

The first step will be performing a simple regression to test if marriage influences becoming an entrepreneur and entrepreneurial success. Regressions 2a and 2b are the baseline regressions, only containing marriage as the explanatory variable. Regressions 3a and 3b then add the control variables.

$$\log\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 Marriage + \varepsilon$$

$$(2a)$$

$$Y = \beta_0 + \beta_1 Marriage + \varepsilon$$

$$(2b)$$

$$\log\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 Marriage + \beta_2 Children + \beta_3 Age + \beta_4 Education + \varepsilon$$

$$(3a)$$

$$Y = \beta_0 + \beta_1 Marriage + \beta_2 Children + \beta_3 Age + \beta_4 Education + \varepsilon$$

$$(3b)$$

These regressions will answer the first hypothesis: *Married people have lower entrepreneurial intentions, but higher success if they do decide to become an entrepreneur.* The coefficient of interest in these regressions is β_1.

Regressions 2a and 3a display the logistic equations. In these equations, *p* illustrates the probability that *Entrepreneur* equals the value 1 dependent on the values of the variables on the right-hand side of the equations. The coefficient β_1 represents how being married affects the chances of the outcome happening. Specifically, for a one-unit increase in the *Marriage* variable (moving from unmarried to married), the log-odds of the outcome are expected to change by β_1 units. This change can be transformed to a percentual change in the odds of having entrepreneurial intentions using this formula: $(e^{coefficient} - 1) * 100\%$.

Regressions 2b and 3b display the OLS regressions. Since marriage is a binary variable, a positive coefficient would mean that being married positively influences the entrepreneurial success. A negative coefficient would thus mean that married entrepreneurs make significantly less money.

After these regressions, the other explanatory variables gender and religion will be added, to see if the results change when adding gender and religion.

$$\log\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 Marriage + \beta_2\,Gender + \beta_3 Religion + \beta_4 Children + \beta_5 Age$$
$$+ \beta_6 Education + \varepsilon$$

$$(4a)$$

$$Y = \beta_0 + \beta_1 Marriage + \beta_2\,Gender + \beta_3 Religion + \beta_4 Children + \beta_5 Age$$
$$+ \beta_6 Education + \varepsilon$$

$$(4b)$$

Regressions 4a and 4b do not necessarily test any of the three hypotheses but are added to see the effects of gender and religion on their own, without any interactions. The important coefficients here are β_1, β_2, and β_3. Regression 4a is the logistic regression on the probability that the individual has entrepreneurial intentions and regression 4b shows the OLS regression on the entrepreneurial outcomes. Since the new coefficients are binary variables, the same interpretation for these coefficients can be followed.

To test the other two hypotheses, the interactions between marriage and the other two explanatory variables must be measured. Equations 5a and 5b add the interaction effects between marriage and gender, as well as between marriage and religion.

$$\log\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 Marriage + \beta_2\ Gender + \beta_3 Religion + \beta_4 Marriage * Gender$$
$$+ \beta_5 Marriage * Religion + \beta_6 Children + \beta_7 Age + \beta_8 Education + \varepsilon$$
$$(5a)$$

$$Y = \beta_0 + \beta_1 Marriage + \beta_2\ Gender + \beta_3 Religion + \beta_4 Marriage * Gender$$
$$+ \beta_5 Marriage * Religion + \beta_6 Children + \beta_7 Age + \beta_8 Education + \varepsilon$$
$$(5b)$$

For hypothesis 2, *Married women are less likely to become entrepreneurs, but their entrepreneurial success is not smaller than that of married men,* coefficient β_4 needs to be evaluated. This coefficient represents the interaction effect between the variables Marriage and Gender.

Regression 5a displays the logistic regression on the binary entrepreneurial intentions proxy. β_4 represents the additional effect on the log-odds of the outcome when both the *Marriage* and *Gender* are equal to 1. If β_4 is positive, it suggests that the combined effect of being married and being male (compared to unmarried and female) increases the odds of having entrepreneurial intentions. A positive β_4 indicates that the effect of marriage on the outcome differs depending on gender.

Regression 5b subsequently shows the OLS regression for the *Income* outcome. Here, a positive β_4 suggests that the effect of Marriage on Y is stronger for male individuals compared to females, while a negative β_4 suggests the opposite. The magnitude of this coefficient reflects the size of the interaction effect.

To answer hypothesis 3, *Married religious individuals have lower entrepreneurial intentions and success,* β_5 must be interpreted. This interpretation follows the same reasoning as the interpretation for β_4 in the previous paragraph.

β_5 in the logistic regression on entrepreneurial intentions quantifies the effect on the log-odds of the target variable for a religious man. If this coefficient would be positive, it implies that being a religious man rises the log-odds of being an entrepreneur.

For the OLS regression 5b, a positive β_5 indicates that being married has a stronger impact on the entrepreneurial income for those who are religious. On the other hand, a negative β_5 implies that the effect of Marriage on entrepreneurial income is weaker for religious individuals compared to non-religious individuals. The size of this coefficient shows the strength of the interaction effect, reflecting how much the relationship between Marriage and income from entrepreneurship varies based on religiosity.

5. Results

In this section, the results from the data analysis will be presented, evaluated, and used to answer the hypotheses. The results for regressions 2a, 3a, 4a, and 5a are presented in Table 5. These regressions have *Entrepreneur* as the dependent variable; this variable is a binary variable having a value of 1 if the respondent is self-employed. Table 6 displays the results of regressions 2b, 3b, 4b, and 5b, having *Income* as the dependent variable in their place. This income variable is the chosen measurement for the entrepreneurial success since it measures the income of all the entrepreneurs in the original dataset. The outputs will be evaluated per hypotheses.

5.1 Evaluation hypothesis 1

Married people have lower entrepreneurial intentions, but higher success if they do decide to become an entrepreneur.

As specified in the methodology, the regressions of interest for the first hypothesis are regressions 2a, 2b, 3a, and 3b. Firstly, the influence of marriage on entrepreneurial intentions; the coefficients for *Married* in Table 5 need to be interpreted. These coefficients are outputs of logistic regressions and thus influence the log-likelihood of someone having entrepreneurial intentions. Regression 2a is the baseline regression, only assessing the effect of marriage on entrepreneurial intentions. The coefficient for *Married* is 0.025, which would imply a small positive effect from marriage on entrepreneurship. However, this coefficient is not significant and therefore no conclusions can be deducted from this number. After adding the control variables in regression 3a, the coefficient for *Married* becomes even smaller and stays nonsignificant. Due to the insignificance of the coefficients, the first part of the hypothesis cannot be supported by the data analysis performed.

The second part of the hypothesis focuses on the income of the respondents that in fact are self-employed. The coefficients show the outputs of the OLS regressions. As for the first part of the hypothesis, no conclusions can be made. The coefficients for *Married* in regressions 2b and 3b are insignificant again. They are both positive and seem to be quite different from zero, which would imply that marriage has a positive influence on the

entrepreneurial income, but since the coefficients are not significant no inference can be made.

For the four regressions that were evaluated for the hypotheses, the constant was positive in regressions 2a, 2b, and 3a. When the constant term is statistically significant, but none of the other predictor variables in the model are significant, it suggests that the baseline log-odds (for regressions 2a and 3a) or the baseline mean (regression 2b) is statistically different from zero even when the other coefficients are not considered. A significant constant without other significant explanatory variables implies the existence of unobserved variables that influence the entrepreneurial outcomes and success. Regressions 3a and 3b show a positive and significant coefficient for *Education*, which implies that this control variable has a positive effect on both entrepreneurial intentions and success. This is not the variable of interest, but clearly should be added to the regressions to minimize the omitted variable bias.

Based on the results of the evaluated regressions in this section, the hypothesis cannot be supported. The insignificance of the coefficients means that there is not enough proof to conclude the hypotheses.

5.2 Evaluation hypotheses 2

Married women are less likely to become entrepreneurs, but their entrepreneurial success is not smaller than that of married men.

This hypothesis will again be answered split up into two parts: entrepreneurial intentions and entrepreneurial success. To assess if married women have less entrepreneurial intentions regression 5a is the most important, but regression 4a will also be regarded. The coefficient for *Gender* in regression 4a is positive and significant at the 0.1 level. The coefficient of 0.259 means that if a respondent is a man, the odds that this individual has entrepreneurial intentions increases with 29%. Gender, in fact, influences entrepreneurial intentions; men tend to have higher entrepreneurial preferences. The regression of interest, however, is regression 5a. The interaction effect between marriage and gender was included. In this regression, the variable *Gender* has an even higher value at the same significance level, indicating that males are likelier to become entrepreneurs. Nevertheless, the coefficient for the interaction term *Married:Gender* is not significant. Therefore, no conclusions on the

interacting effect between marriage and gender can be made when regarding entrepreneurial intentions.

Table 6 displays the results needed for the second part of the second hypothesis; if one becomes an entrepreneur, does the effect of marriage differ for women and men? Again, regression 5b holds the results needed for answering the hypothesis, but also 4b will be evaluated. Also here, the coefficient for *Gender* is positive and even significant at the 0.01 level. This means that being a man, is positively associated with a higher entrepreneurial income. Regression 5b includes the interaction term between marriage and gender. This term has a value of 2,285.074 and is significant at the 0.01 level. This implies that inferences about the interaction between marriage and gender can be made. However, it is important to assess the fact that the constant and coefficients for *Married* and *Gender* are not significant, while these coefficients denote the baselines against which the interaction term is evaluated. Based on the data analysis holding all the other factors constant, being both married and male, is associated with an increase of the entrepreneurial income of 2,285 euros.

To answer the hypothesis, we do not have enough evidence for the first part, since the coefficients of the interaction term of interest were not significant. The second part of the hypothesis must be rejected; married men have a higher income than married women based on the analysis run.

5.3 Evaluation hypotheses 3
Married religious individuals have lower entrepreneurial intentions and success.

The first part of the final hypotheses will again be tested with the output in Table 5. Regression 4a does not answer the question but shows if religion on its own influences entrepreneurial intentions. The coefficient is negative, which implies that being religious negatively influences the log-likelihood of becoming an entrepreneur, but due to the insignificance, no real inferences can be made based on this number. Regression 5a also adds the interaction term between religion and marriage. This coefficient is also negative, implying that being married and being religious has a negative relationship with self-employment. However, due to the insignificance of the interaction terms and the baselines, no conclusions can be made.

Table 6 shows the output for the second part of the hypothesis; do married individuals have lower entrepreneurial success? Religion is negatively associated with entrepreneurial

income if we regard the coefficient for *Religious* in regression 4b. However, this coefficient is not significant so nothing can be inferred from this coefficient. The same goes for the interaction terms and the baselines for marriage and religion in regression 5b. Here, being a religious and married person does seem to have a positive influence on entrepreneurial intentions, but since the coefficient, as well as the baselines are insignificant, no conclusions can be made.

Thus, hypothesis 3 cannot be supported. The data and the analysis conducted to test the hypothesis did not collect enough evidence to make any conclusions about this hypothesis.

Table 5

Regression outputs on entrepreneurial intentions

	Dependent variable:			
	Entrepreneur			
	(2a)	(3a)	(4a)	(5a)
Married	0.025	0.003	−0.005	0.126
	(0.143)	(0.162)	(0.163)	(0.286)
Gender			0.259*	0.349*
			(0.144)	(0.209)
Religious			−0.134	−0.102
			(0.153)	(0.216)
Children		0.055	0.077	0.075
		(0.183)	(0.183)	(0.183)
Age		0.002	0.002	0.002
		(0.005)	(0.005)	(0.005)
Education		0.667***	0.666***	0.670***
		(0.144)	(0.145)	(0.145)
Married:Gender				−0.171
				(0.288)
Married:Religious				−0.069
				(0.297)
Constant	−2.953***	−3.397***	−3.464***	−3.530***
	(0.104)	(0.265)	(0.270)	(0.292)
Observations	4,120	4,120	4,120	4,120
Log Likelihood	−820.809	−809.999	−807.979	−807.775
Akaike Inf. Crit.	1,645.619	1,629.999	1,629.958	1,633.550

Note: $^{*}p<0.1; ^{**}p<0.05; ^{***}p<0.01$

Table 6

Regression outputs on entrepreneurial success

	Dependent variable:			
	Income			
	(2b)	(3b)	(4b)	(5b)
Married	835.517	540.592	549.336	−1,063.079
	(556.971)	(606.095)	(575.707)	(1,062.619)
Gender			2,074.173***	908.233
			(523.417)	(755.309)
Religious			−308.938	−494.138
			(559.942)	(851.046)
Children		63.678	−58.661	0.703
		(666.860)	(643.103)	(647.773)
Age		36.260	34.138	33.588
		(23.310)	(22.582)	(23.060)
Education		1,228.816**	1,390.400**	1,368.853**
		(580.133)	(552.993)	(546.007)
Married:Gender				2,285.074**
				(1,041.414)
Married:Religious				637.799
				(1,136.819)
Constant	3,161.889***	609.482	−204.411	506.321
	(402.689)	(1,190.232)	(1,149.832)	(1,180.210)
Observations	132	132	132	132
R^2	0.017	0.074	0.179	0.213
Adjusted R^2	0.009	0.045	0.140	0.162
Residual Std. Error	3,196.245 (df = 130)	3,137.860 (df = 127)	2,978.999 (df = 125)	2,939.419 (df = 123)
F Statistic	2.250 (df = 1; 130)	2.554** (df = 4; 127)	4.540*** (df = 6; 125)	4.171*** (df = 8; 123)

Note: *p<0.1; **p<0.05; ***p<0.01

6. Discussion

6.1 Evaluation of results

This research focused on finding the effects of marriage on entrepreneurial intentions and success and how this was influenced by gender and religion. The main finding is a relationship between gender, marriage, and entrepreneurial income. The combined effect of being married and having a certain gender has an impact on the income from self-employment. Since the coefficients for marriage and gender on their own are not significant, they do not seem to individually impact the entrepreneurial outcome. However, since marriage has a positive coefficient, this indicates that there exists a tendency for a positive relationship existing between gender and entrepreneurial income. This is in line with the literature from Petrongolo and Ronchi (2020), commenting on the wage gap between men and women, especially driven by part-time working. The coefficient for marriage in the final regression is, although insignificant, negative. This implies a negative impact of marriage on entrepreneurial success. However, when you are male and married, the effect of marriage is in fact positive. This can be explained according to the literature; marriage can act as a safety net, but due to the male-female labour division in households, this effect of marriage is positive for males but negative for females (Kim & Ling, 2001; Schiller & Crewson, 2007).

Other significant findings mostly focussed on the positive effect of being male on entrepreneurial intentions. The fact that men are more likely to become entrepreneurs is in line with the view of Swartz & Amatucci (2018); women face more discrimination and gender bias when they want to become self-employed.

Religion seemed to have a negative impact on entrepreneurship in the regressions run. These effects were not significant but can be linked to the literature from Zhao et al. (2010), stating that religious people often miss the key elements of entrepreneurship; innovation and risk-taking. However, religion often is associated with marriage and gender and influences entrepreneurship through these routes as well (Dakhli & De Clercq, 2004). The effects of religion often focus more on the gender division that is stronger than on sole effects of religion. Therefore, this research gives reason to believe that marriage is influenced more by gender roles than by religion; the influences of religion on entrepreneurship om marriage and

entrepreneurship are possibly more through gender roles than through another alone standing effect.

Even considering the fact that many results were insignificant, this research has some important practical implications. When assessing entrepreneurial intentions and success it is clear that women are underrepresented and underperforming in terms of income. The government should be aware that the wage gap goes beyond salaried employment but is also apparent in self-employed situations. This indicates that more strict rules for freelancing and other types of self-employments for equalizing the income of male and female might be in place. Furthermore, the work-labour division between male and female in marriage is very unequal which causes married men to make more money from entrepreneurship. Practically, the government could supply easier access to day-care or promote acceptance for having equal family obligations in a marriage. This way women can also benefit from the positive marital effects on entrepreneurship and entrepreneurial income.

6.2 Limitations

Since the results were often insignificant, the statements above are often more speculations than proven facts. The insignificance of the coefficients can be due to several reasons. First, it is possible that the variables that are regarded in the research do not influence entrepreneurial intentions or success. However, since the literature provides strong evidence that there is at least some effect, this reason seems unlikely. It is also possible, that in fact, effects exist, but that the negative and positive effects balance each other out and therefore no significant results can be found.

A likelier explanation is that the statistical power of this research was not large enough. The statistical power denotes the probability of detecting a true effect in the data given for example the sample size. For the problem regarding entrepreneurial intentions, the dataset used was quite large (4120 observations), but only a very small proportion of this dataset belonged to the target group of people with entrepreneurial intentions (171 observations). Therefore, it is nearly impossible for the logistic regression to measure statistically significant effects, especially when the effects measured are not particularly large.

The second part of the analysis about the entrepreneurial incomes has an even smaller sample size; only 132 observations. The statistical power is hence also very small in this case,

minimizing the chance of finding statistically significant results. The figures displayed in section 3.4 and the appendix also show differences in mean income for the different explanatory variables. If the differences are very notable, such as the differences in entrepreneurial income for men and women, this effect is still captured by the OLS regressions. Therefore, not only the statistical power but also the size of the effects could be the reason for the insignificant results. To conclude, the number of people who complied with the notion of entrepreneurial intention was very low, and therefore our target sample size was too small to gain sufficient statistical power.

The total original sample was very sufficiently large and generalized since the data is collected from a very diverse group in the Netherlands, on invitation. Nonetheless, some selection is present: the people who are invited receive a monetary reward. This monetary reward serves as a larger incentive for people with lower than higher incomes. Especially for measuring entrepreneurial income, this could be problematic. If little high incomes enter the panel, some trends might stay unobserved. The selection bias due to the participation in the LISS panel, could also be dependent on the treatment and the dependent variables. For example, married people might have more family obligations, which impairs them to fill out the survey. The same goes for entrepreneurs, they might be busier and therefore choose not to participate in the survey. Another possibility is that people with lower incomes from entrepreneurship, feel a sense of discomfort to acknowledge this in a survey and therefore decide to not participate in the survey or leave the income question blank. These relationships are not supported by evidence and could also influence the survey participation in another direction. It is nevertheless important to bear in mind that the sample could be influenced by many factors, including the treatment and dependent variables.

Next to the selection bias for the sample, there is also selection in the treatment. People decide for themselves if they want to be married. This choice might be based on certain personality traits, financial considerations, or family dynamics. These characteristics could lead to biased results, it is possible that the effects on entrepreneurial intentions or success were not based on marriage but on the characteristics correlated with the choice to marry. The same goes for religion. The choice to adhere to a belief is influenced by many internal and external effects that could also influence the outcomes. The family life and

atmosphere influence the religious choice heavily, but also again character traits. The treatment is therefore not random, which can also bias the results.

Moreover, there could be confounding variables that were not controlled for in this research. Entrepreneurship can be influenced by many other factors than those included in the model. In this research, education appeared to have a positive influence on entrepreneurial intentions and success, but this relationship could be biased due to confounding factors. For example, one's assets could influence both education and entrepreneurial intentions. Pursuing tertiary education is a costly affair and becoming self-employed often also requires a financial safety net. The influence of the *Education* could have been overestimated by this causal omitted variable bias. There could also be another type of bias, namely descriptive omitted variable bias. For example, "Parental Support", is not included in the regressions, while having a support network from your parents could influence entrepreneurial intentions. If "Parental Support" is indeed an important variable that affects entrepreneurial intentions but is not accounted for in the equation, it would lead to a descriptive omitted variable bias. These two examples are not an exhaustive list of the potential omitted variables biases that could exist in the research; they are examples of causal and descriptive variable biases that likely exist in the regressions.

Lastly, it is important to assess some factors more specific to the research choice. Firstly, the variation within the variables is very limited. Most of the variables were coded to be binary. For some of the variables this choice was inevitable; one can be either married or not, have entrepreneurial intentions or not, or be male or female. Religion, education, and children were purposely coded as a yes or no question. This limits the variation and eliminates information from the research such as differences between having one or many children.

Also, this is a cross-section analysis; no over-time differences were accounted for. At what age people become entrepreneurs or get married is not included in the analysis. The research only compares the share of people with entrepreneurial intentions and their outcomes on the chosen treatments in a specific moment in time. These results turned out not to be significant in this sample. However, for example, differences between early or later married people could influence entrepreneurship. Investigating respondents over a longer

time period or including variables such as "age of marriage" or "age of becoming an entrepreneur" could potentially improve the results.

7. Conclusion

Based on the findings of this research, the question of how marriage influences entrepreneurial intentions and outcomes in the Netherlands, and whether these effects differ based on gender and religion, can be addressed as follows:

Based on the data, it was determined that marriage alone does not have a statistically significant impact on entrepreneurial intentions or outcomes in the Netherlands. This suggests that being married, on its own, does not influence individuals' likelihood of pursuing entrepreneurship or their subsequent performance in this field. However, this conclusion could be underpowered by the size of the target population.

No statistically significant results were found that implied any relationship between being religious and entrepreneurial intentions or outcomes. Also, when this factor interacted with marriage significant results were not found. This does not necessarily prove the non-existence of any joint influence of religion and marriage on entrepreneurship, but the dataset that was used did not provide evidence.

In contrast, the analysis revealed that gender was found to be positive and statistically significant in relation to both entrepreneurial intentions and outcomes. This indicates that gender, independent of marriage and religion, plays a significant role in influencing individuals' entrepreneurial intentions and outcomes in the Netherlands. Evidence was found that males are likelier to become self-employed and earn a higher income from this.

The interaction between gender and marriage also had a significant positive coefficient for entrepreneurial income. This means that the combined effect of being a married male has a positive influence on individuals' entrepreneurial performance in the Netherlands. This interaction term was also found to be positive regarding entrepreneurial intentions, but not significant. This means that from this research no factual joined relationship between these factors and entrepreneurial intentions can be deduced.

In conclusion, while marriage and religion were found to have no direct significant effects on entrepreneurial intentions and outcomes in the Netherlands, the interaction between marriage and gender demonstrated a positive influence for married men on entrepreneurial outcomes. Moreover, gender itself was found to be a significant determinant of entrepreneurial intentions and outcomes. These findings provide valuable insights into the complex relationship between marriage, gender, and entrepreneurial outcomes.

The practical problems for the researched relationships lay in the wage gap between men and women and the unequal work-labor division between men and women within family life. The policy recommendations are therefore better legislation on equal income for self-employed people, easier access to day-care and promoting acceptance of equal family obligations within marriages.

The recommendations for future research firstly focus on improvements to the current research method. The sample size would need to increase to gather enough respondents that are part of the target variable. Another possibility could be to only interview entrepreneurs and do a more qualitative interview-based study on how marriage, gender, and religion differences impacted their route to entrepreneurship and success.

Another new and deeper angle could be pursued regarding religion. This paper only differentiated between religious and non-religious; even though many differences exist between these religions. The most important Dutch religions – Catholicism, Protestantism, and Islam – could be assessed separately in future research.

Another interesting research design could focus on individuals over time. This way difference-in-difference analysis can be performed for entrepreneurial intentions and success for people before and after marriage. The people who do not get married can be used as a reference group. This method could measure the direct effects of marriage.
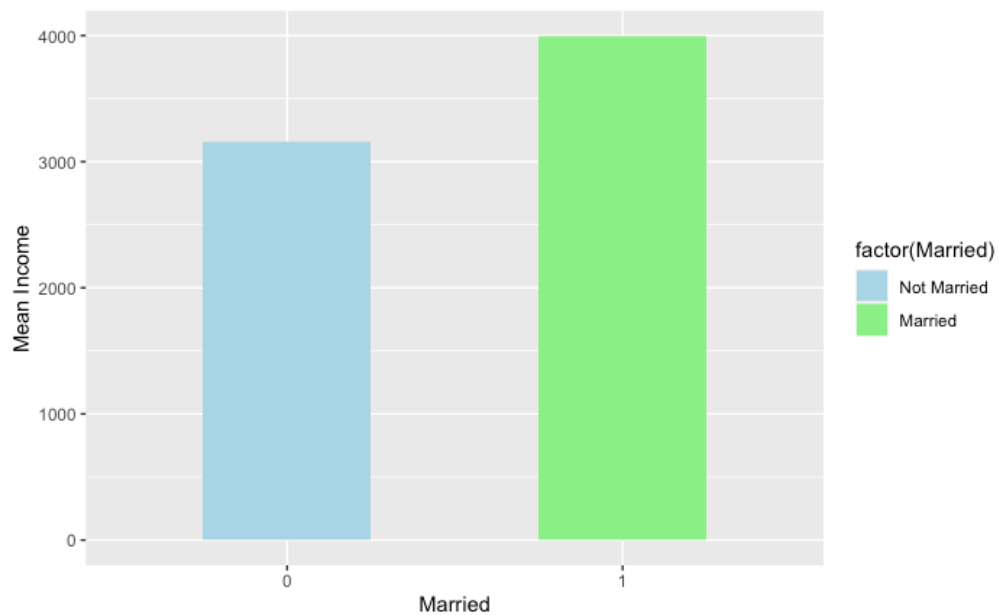
8. Appendix

Appendix figure 1
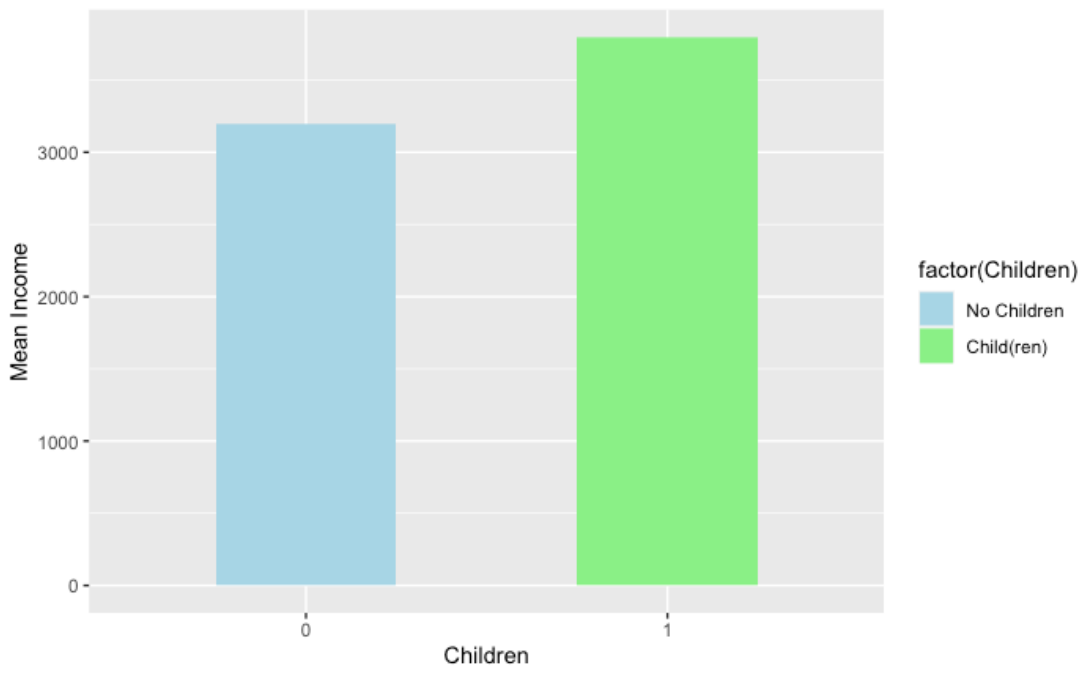
Mean entrepreneurial income for religion
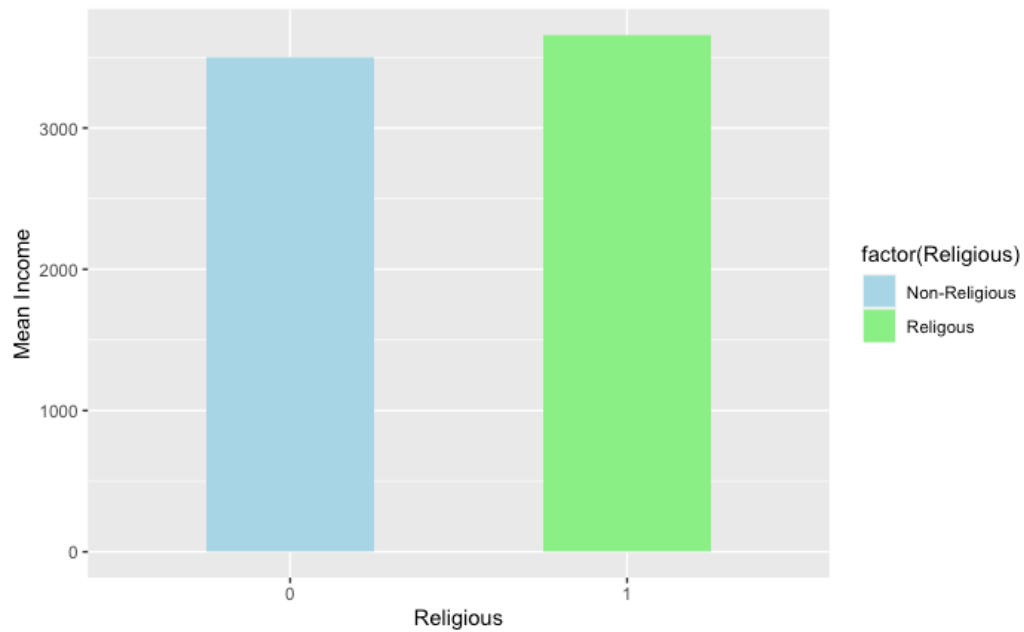
Appendix figure 2

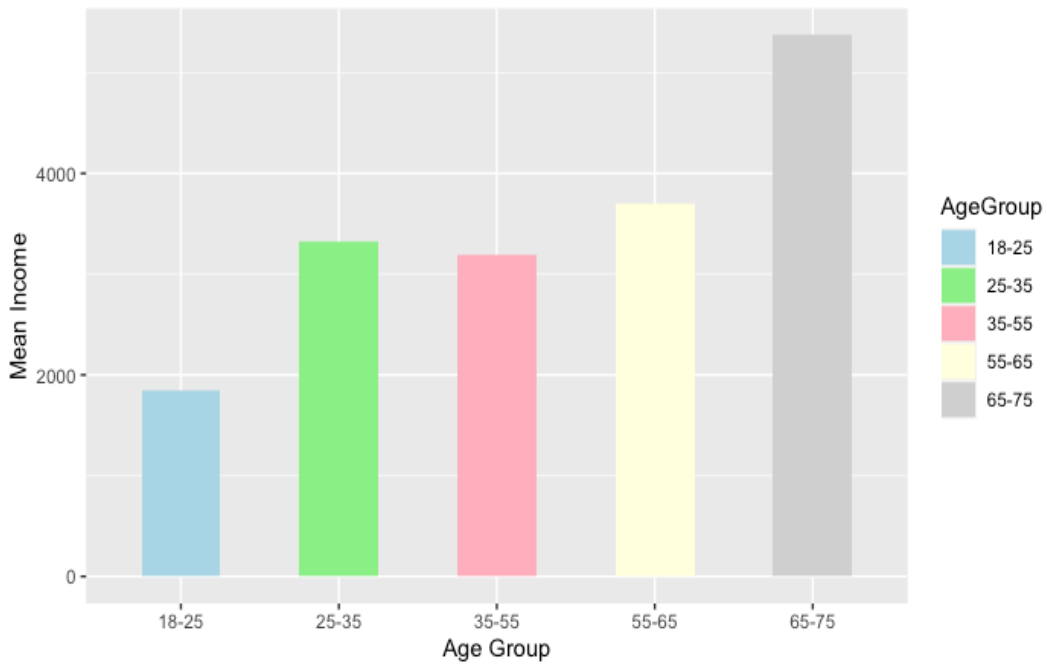*Mean entrepreneurial income for marital status*

Appendix figure 3

Mean entrepreneurial income for children

Appendix figure 4

Mean entrepreneurial income per age group

References

Adisa, T. A., Gbadamosi, G., Mordi, T., & Mordi, C. (2019). In search of perfect boundaries? Entrepreneurs' work-life balance. *Personnel Review*.

Aldrich, H. E., & Zimmer, C. (1986). Entrepreneurship through social networks. In D. L. Sexton & R. W. Smilor (Eds.), *The Art and Science of Entrepreneurship* (pp. 3-23). Cambridge, MA: Ballinger.

Autio, E., & Acs, Z. J. (2010). Intellectual property protection and the formation of entrepreneurial growth aspirations. *Strategic Entrepreneurship Journal, 4*(3), 234-251.

Barentsen, J. (2019). The religious leader as social entrepreneur. *Servant leadership, social entrepreneurship and the will to serve: Spiritual foundations and business applications*, 235-253.

Baumol, W.J. (1996). Entrepreneurship: Productive, unproductive, and destructive. *Journal of Business Venturing*, 11, 3-22.

Belk, R. W. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research, 67*(8), 1595-1600.

Brush, C. G., De Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and entrepreneurship*.

Brush, C. G., & Hisrich, R. D. (2009). Women entrepreneurs: A research agenda. In H. K. Robinson, J. M. Sexton, & J. H. Katz (Eds.), *The Handbook of Entrepreneurial Dynamics* (pp. 465-479). Thousand Oaks, CA: Sage.

Caputo, R. K., & Dolinsky, A. (1998). Women's choice to pursue self-employment: The role of financial and human capital of household members. *Journal of Small Business Management*, *36*, 8-17.

Central Bureau for Statictisc (2023, may 16). *Beroepsbevolking.* https://www.cbs.nl/nl-nl/visualisaties/dashboard-beroepsbevolking/beroepsbevolking

Central Bureau for Statistics. (2020a, September 2). *Genderscan van ondernemerschap in Nederland*. https://www.cbs.nl/nl-nl/maatwerk/2020/36/genderscan-van-ondernemerschap-in-nederland

Central Bureau for Statistics. (2020b, december). *Emancipatiemonitor 2020.* https://digitaal.scp.nl/emancipatiemonitor2020/hoe-doet-nederland-het-ten-opzichte-van-andere-eu-

landen/#:~:text=Vrouwen%20en%20mannen%20in%20Nederland,de%20werkende%20vrouwen%20een%20voltijdbaan.

Christiansen, C., Joensen, J. S., & Rangvid, J. (2015). Understanding the effects of marriage and divorce on financial investments: The role of background risk sharing. *Economic Inquiry*, *53*(1), 431-447.

Cooper, A. C., & Artz, K. W. (1995). Determinants of satisfaction for entrepreneurs. *Journal of Business Venturing*, *10*(6), 439-457.

Dakhli, M., & De Clercq, D. (2004). Human capital, social capital, and innovation: A multi-country study. *Entrepreneurship & Regional Development, 16*(2), 107-128.

David, P., & Stafford, L. (2015). A relational approach to religion and spirituality in marriage: The role of couples' religious communication in marital satisfaction. *Journal of Family Issues*, *36*(2), 232-249.

Dickson, P. H., Solomon, G. T., & Weaver, K. M. (2008). Entrepreneurial selection and success: does education matter?. *Journal of small business and enterprise development*, *15*(2), 239-258.

Dodd, S. D., & Gotsis, G. (2007). The interrelationships between entrepreneurship and religion. *The international journal of entrepreneurship and innovation*, *8*(2), 93-104.

Dewitt, S., Jafari-Sadeghi, V., Sukumar, A., Aruvanahalli Nagaraju, R., Sadraei, R., & Li, F. (2022). Family dynamics and relationships in female entrepreneurship: An exploratory study. *Journal of Family Business Management*.

Dwyer, P.D., Gilkeson, J.H. and List, J.A. (2002), "Gender differences in revealed risk-taking: evidence from mutual fund investors", Economics Letters, Vol. 76 No. 2, pp. 151-158.

Foss, N. J. (2011). Entrepreneurship in the context of the resource-based view of the firm. *Perspectives in entrepreneurship: A critical approach*, 120-133.

Freguja, C., Cardinaleschi, S., Coppola, L., & Demofonti, S. (2007, December). Women and economics: household, enterprise and decision-making bodies. In *Global Forum on Gender Statistics, Rome* (pp. 10-12).

Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of Management Review, 31*(1), 72-92.

Houben, H. S. M. (2023). Religieuze betrokkenheid in Nederland. *Centraal Bureau Voor De Statistiek. https://www.cbs.nl/nl-nl/longread/statistische-trends/2023/religieuze-betrokkenheid-in-*

nederland?onepage=true#:~:text=Ook%20de%20verdeling%20over%20de,'%20met%205%2 C9%20procent.

Hyseni Duraku, Z., Jemini-Gashi, L., & Toçi, E. (2020). Perceptions of early marriage, educational aspirations, and career goals among Kosovar adolescents. *Marriage & Family Review*, *56*(6), 513-534.

Jennings, J. E., & Brush, C. G. (2013). Research on women entrepreneurs: Challenges to (and from) the broader entrepreneurship literature? *The Academy of Management Annals, 7*(1), 663-715.

Kautonen, T., Down, S., & Minniti, M. (2014). Ageing and entrepreneurial preferences. *Small Business Economics*, *42*, 579-594.

Lee Siew Kim, J., & Seow Ling, C. (2001). Work-family conflict of women entrepreneurs in Singapore. *Women in Management review*, *16*(5), 204-221.

Merino, S. M. (2014). Social support and the religious dimensions of close ties. *Journal for the Scientific Study of Religion*, *53*(3), 595-612.

Miller, T. L., Grimes, M. G., McMullen, J. S., & Vogus, T. J. (2012). Venturing for others with heart and head: How compassion encourages social entrepreneurship. *Academy of Management Review, 37*(4), 616-640.

Molina, J. A., Velilla, J., & Ortega, R. (2016). The decision to become an entrepreneur in Spain: the role of household finances. *International Journal of Entrepreneurship*, *20*, 57.

Noussair, C. N., Trautmann, S. T., Van de Kuilen, G., & Vellekoop, N. (2013). Risk aversion and religion. *Journal of Risk and Uncertainty*, *47*, 165-183.

Parker, S. C. (2008). Entrepreneurship among married couples in the United States: A simultaneous probit approach. *Labour Economics*, *15*(3), 459-481.

Parker, S. C. (2009). *The Economics of Entrepreneurship.* Cambridge University Press.

Petrongolo, B., & Ronchi, M. (2020). Gender gaps and the structure of local labor markets. *Labour Economics*, *64*, 101819.

Phipps, K. A. (2012). Spirituality and strategic leadership: The influence of spiritual beliefs on strategic decision making. *Journal of business ethics*, *106*(2), 177-189.

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review, 25*(1), 217-226.

Schiller, B. R., & Crewson, P. E. (1997). Entrepreneurial origins: A longitudinal inquiry. *Economic inquiry*, *35*(3), 523-531.

Stuart, T. E., & Sorenson, O. (2005). Social networks and entrepreneurship. *Handbook of entrepreneurship research: Interdisciplinary perspectives*, 233-252.

Sturges, J., & Guest, D. (2004). Working to live or living to work? Work/life balance early in the career. *Human Resource Management Journal, 14*(4), 5-20.

Swartz, E., & Amatucci, F. (2018). Framing second generation gender bias: implications for women's entrepreneurship. *Journal of Developmental Entrepreneurship*, *23*(02), 1850009.

Van Auken, H., & Werbel, J. (2006). Family dynamic and family business financial performance: Spousal commitment. *Family business review*, *19*(1), 49-63.

Waumsley, J. A., Houston, D. M., & Marks, G. (2010). What about us: measuring the work-life balance of people who do not have children. *Review of European Studies, 2(2),* 3-17.

Werbel, J. D., & Danes, S. M. (2010). Work family conflict in new business ventures: The moderating effects of spousal commitment to the new business venture. *Journal of Small Business Management*, *48*(3), 421-440.

Winn, J. (2005). Women entrepreneurs: can we remove the barriers?. *The International Entrepreneurship and Management Journal*, *1*, 381-397.

Woods, J. J., Seychell, S., Ozen, E., Spiteri, J., Suban, R., & Grima, S. (2020). Explaining Heterogeneity in Risk Appetite and Tolerance: The Turkish Case. In *Contemporary Issues in Audit Management and Forensic Accounting* (pp. 111-130). Emerald Publishing Limited.

Zhao, H., O'Connor, G., Wu, J., & Lumpkin, G. T. (2021). Age and entrepreneurial career success: A review and a meta-analysis. *Journal of Business Venturing*, *36*(1), 106007.