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WHAT AFFECTS THE ELECTORAL SUCCESS OF FEMALE CANDIDATES? ANALYSIS OF ESTONIAN PARLIAMENTARY ELECTIONS OF 2015 AND 2019

MA thesis

Supervisor: Martin Mölder, PhD

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I have written this Master's thesis independently. All viewpoints of other authors, literary sources and data from elsewhere used for writing this paper have been referenced.

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MIS MÕJUTAB NAISTE VALIMISEDU? EESTI 2015. JA 2019. AASTA PARLAMENDIVALIMISTE ANALÜÜS

Helen Urmann

Resümee

Kuigi naised moodustavad riikide populatsioonist vähemalt poole, ei kajastu see enamasti proportsionaalselt naiste kirjeldava esindatuse määras parlamentides. Naiste osakaal Riigikogus on iseseisvumisperioodi jooksul kasvanud, kuid jäänud ka naiste jaoks kõige edukamaks osutunud 2019. aasta parlamendivalimistel siiski alla 30%. Selline tendents pole omane vaid Eestile, vaid on täheldatav ka ülemaailmselt – keskmine naisesindajate osakaal jääb 24% piirimaile (Interparliamentary Union 2019). Kuivõrd poliitika on üks tähtsaid esindusvaldkondi kogu ühiskonnas, võib eeldada, et poliitiliste ressursside, k.a. võimu ebaühtlane jaotumine toob kaasa negatiivsed mõjud, muuhulgas puuduliku poliitikafookuse, lõhestumise, aga ka ühiskondlike normide manifesteerumise, mis võivad luua väärarusaamad teatud ühiskondlike gruppide võimekusest. Poliitilise ebavõrdsuse tekketegurite selgitamine on seega asjakohane, mõistmaks ebavõrdsust ka laiemas ühiskondlikus plaanis.

Naiste valimisedu mõjutavad nii riik, parteid kui ka valijad ning seda erinevatel tasanditel kandideerimis- ja valimisotsuseid tehes. Antud töö taustal on eeldatud, et kõikide poliitiliste toimijate käitumine on otseselt või kaudselt ajendatud institutsioonilistest piirangutest – kuigi Eestis pole rakendatud riiklikke kvoodimeetmeid naiste osakaalu mõjutamiseks, võib eeldada, et teised institutsioonilised faktorid, sealhulgas näiteks valimisnimekirjade süsteem või ringkonna suurus, võivad toimijate motiivide kaudu naiste edupotentsiaalile mõju avaldada. Selliselt võib uurida, millised asjaolud on määravad kandidaatide valimisedu saavutamisel – ja ennekõike, kas naiseks olemisel on valituks osutumisel mõju.

Antud lõputööl on kaks eesmärki. Esiteks rakendatakse Mirjam Alliku (2015) esitatud analüüsilist raamistikku uutele valimistele, replikeerides analüüsi ka 2015. ja 2019. aasta valimiste andmetele. See lisab olemasolevale analüüsile informatsiooni viimaste valimiste tulemuste kohta, täiendades seega ülevaadet kandidaatide edufaktoritest Eestis. Varasemate valimiste analüüside informatsiooniga täiendamine võimaldab muuhulgas

arutleda selle üle, mis võiks olla aluseks naiste poliitilise osakaalu aeglasele kuid üldisele tõusule Riigikogus viimase kolmekümne aasta vältel. Teiseks, avalike andmete olemasolu Eesti valimiste kontekstis võimaldab valimisedu faktoreid analüüsida kandidaadi tasandil – sellised analüüsid pole kuigi levinud, kuivõrd andmete puudujäägid on täheldatud üheks suuremaks probleemiks sarnaste uuringute läbiviimisel mujal riikides. See võimaldab testida veel täiendavate muutujate mõju valimisedule, üritamaks hinnata erinevate mõjurite rolli Riigikogu "populatsiooni" kujundamisel.

Töö tulemusel selgus, et naiseks olemist ei saa tingimata seostada madalama valimiseduga. Kuigi naiseks olemisel oli statistiliselt oluline negatiivne seos häältesaagiga 2019. aasta valimiste puhul, on erisused naiste ja meeste vahel "grupisiseselt" siiski väiksed – kogenud aga ka esmakordselt kandideerinud naiskandidaadid ei kaotanud valimisedus naiseks olemise tõttu. Oluline erinevus kerkis üksnes haridustaseme puhul, mis viitas, et vähesema haridusega naised koguvad vähem hääli, kuid sugude vahelised erinevused ühtlustusid kõrgharitud kandidaatide puhul. Naiseks olemisel polnud valituks osutumise "määramisel" mõju. Tähelepanuväärseimateks mõjufaktoriteks edule on ennekõike siiski poliitilise kogemuse omamine, aga ka erakonna populaarsus ning kandidaatide kõrgemad kohad ringkonnanimekirjas. Selliselt võib eeldada, et erinevused naiste ja meeste valimisedus on väiksed ning erisused - kui need on täheldatavad - on tingitud just ennekõike erinevustest gruppide vahel. Kuivõrd naisriigikogulasi on parlamendis olnud vähem, ei pruugi positiivse seose puudumine naiseks olemise ja valituks osutumise vahel tähendada, et naised on vähem-eelistatud. Pigem eelistavad nii valijad kui erakonnad kogenud kandidaate, kelle seas on naisi vähem. See puudutab ka kandidaatide paigutust parteinimekirjas - kuigi naiskandidaatide puhul võis täheldada nende kõrgemat kohta üldnimekirjas, seda nii parteisid kombineeriva mudeli tulemuste põhjal kui ka hinnates mõju erakondade lõikes eraldi (v.a. Konservatiivse Rahvaerakonna puhul, milles naiskandidaate paigutati madalamatele kohtadele), siis läbivalt oluliseks ja tähelepanuväärseks mõjufaktoriks saab pidada siiski viimatist poliitilist kogemust. Suletud nimekirjade kontekstis võib see viidata, et erakonnad soovivad minimeerida avatud nimekirjadega kaasnevaid riske nende eelistatud kandidaatide valituks osutumisele ning kindlustavad selliselt ennekõike "tugevate" kandidaatide huvid.

Seega – "naiseks olemise" efekt üksi ei selgita valimisedu ning seeläbi sugudevahelist ebaproportsionaalsust Riigikogus. Küll aga võimaldab naiseks olemise efekti hindamine kandidaatide "alagruppide" lõikes mõista, mis on võimalike erisuste aluseks. Viimaste valimiste analüüs kinnitas, et sarnaste nais- ja meeskandidaatide vahel pole valimisedu kontekstis markantseid erinevusi. Naiste vähese osakaalu põhjuseks Riigikogus võib ennekõike pidada naiste vähest riikliku tasandi poliitika kogemust, aga välistada ei saa ka kõrget konkurentsi kandidaadiks astumisel või muid sotsiaalseid tegureid (nt ebasoodne töö- ja pereelu osakaal), mis võivad selgitada naiskandidaatide madalamat hulka kandidaatide populatsioonis. Viimatised asjaolud ei kuulu aga antud töö uurimisvaldkonda ning nõuavad eraldiseisvat uurimust.

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Introduction

One of the core values of democracy is its strive for equality. This democratic ideal is necessary for ensuring the fair treatment and "demarginalization" of groups in efforts to provide opportunities to be heard for different actors within society. The unequal representation of women in politics can be considered threat to the egalitarian principle. Threats of underrepresentation can lead to non-inclusive policy-making, dissatisfaction, legitimacy crisis, and polarization of society (Zimmerman 1994, 4), which pertains the governing bodies to be representative of the society (Rule 1994, 15). Whilst there are several ways of ensuring the representation of certain groups in the political arena, the baseline of representation would still lie at the "level of presence" of representatives – on the descriptive stage.

The lower share of female representatives as compared to their male counterparts has been observed worldwide (Women in national parliaments 2019). The numbers of women in governing bodies mirror the electoral success of female candidates and thus reflect the descriptive representation of women. The "visible" mode of representation assumes certain groups are represented when the representatives resemble those being represented (Pitkin 1967). The body of representatives is expected to mirror the society, which is important as presumably, some groups are exposed to experiences alien to other groups and hence can represent the interests of those groups better. At the same time – the unequal distribution of political power does not only hinder the interests of certain groups, but it also might set norms and values affecting both the preferences for candidates as well as the decisions to run for a seat in the first place (Fox & Lawless 2005, 646). Thus, the factors contributing to the composition of the pool of representatives are important to map not only for understanding the discrepancies in representation, but also for understanding what has constituted these differences.

The electoral success of female candidates has been associated with formal rules, parties' and political elites' incentives, as well as candidates' and voters' motives and characteristics. Whilst institutions set a ground for the elective arena in the first place, it also sets "the rules of the game" which influences the political actors directly and indirectly. Some electoral rules can be considered strong predictors for increasing female

representation. At the same time, the growing numbers of female representatives have also been argued to go hand-in-hand with societal development, gender equality principles, and perceptions of gender roles, to name some (Inglehart et al. 2003; Pippa Norris 2004).

The share of women at the governing (parliamentary) bodies has still remained notably low worldwide, being around 24% on average (Interparliamentary Union 2019). Whilst women expectedly compose about a half of the population of any given country, the interest and concern of the descriptive marginalisation of a social group with this density is reasoned. For Estonia, the number of female representatives has risen over the reindependence period from 13 in the 1992 elections to 28 in the 2019 elections. Although the share of representatives is still not precisely mirroring the "reality", the almost 30year-period has shown a slow but notable increase in the share of female representatives.

The following thesis aims to shed a light on factors associated with the electoral success – that is, the success of gaining votes and getting elected – of the candidates. More specifically, it dwells on trying to map whether being female has an effect on the electoral success of candidates, and ultimately whether the discrepancies between the numbers of male and female representatives can be explained by the unfavouring behaviour of voters and parties against women. The case of Estonia is fruitful for the analysis as the proportional system, combination of open and closed lists, and availability of candidate-level data allow to zone in on the success factors on the level of candidate. Furthermore, whilst an increase can be noted in the share of female representatives in Estonia, it further sheds a light onto what has attributed to this trend – or more so, whether anything has changed over the re-independence period.

The upcoming thesis primarily operates within the context of institutional factors in trying to explain the electoral outcome, or more precisely, the electoral success of the candidate. The thesis approaches this goal in two tiers. First, the analytical framework provided by Mirjam Allik (2015) is used to replicate her analysis of candidates' success also for the 2015 and 2019 parliamentary elections. Applying the existing framework for new data adds new information onto the body of information about factors contributing to candidates' success on the elections, which, in turn, would allow to assess the effects of factors across elections, eventually creating an overview of the elements ensuring

electoral success of candidates over the period of Estonian re-independence until the latest elections. Whilst the literature on candidate-level research has mostly focused on single country or single elections (e.g. Prihatini 2019), or rarely on a small number of countries and elections (e.g. Schwindt-Bayer, Malecki & Crisp 2010), this addition to pre-existing information provided by Mirjam Allik (2015) allows to map the situation for Estonia from 1992 to 2019, by providing the analysis also for 2015 and 2019 elections. Secondly, the relative availability of candidate-level data allows to add additional variables to the models, which are presumed to also affect the electoral chances of candidates. These variables are applied to vote-, seat- and "position"-gaining models. This allows to test the effect of new factors that could be considered important in affecting the success of candidates, whether the success refers to share of votes, probability of getting elected, or the placement of candidates higher up in national lists.

This thesis thus aims to study the effects of different variables contributing to the success of candidates in Estonian parliamentary elections of 2015 and 2019, and more specifically, zones into whether the gender-discrepancies among the pool of representatives could be produced by the negative effect of gender on the electoral success of the candidates or these differences are a product of other factors.

The thesis has been presented in three main parts: 1) providing a theoretical background of the factors highlighted as contributing to the success of female candidates in the literature and mapping the theoretical approach to lay the ground for putting down hypotheses and interpreting the results of the analysis, 2) presenting an overview of research design and research decisions, including an overview of institutional context of the Estonia, as well as the introduction of data, methods of analysis, and research decisions with regards to the operationalization of variables, 3) presenting the results of the analysis.

1. Determinants of electoral success: women in politics

The perceptions of equality first and foremost rely on the sense of justice derived from the recognition of balances and imbalances in resource distribution. Sense of inequalities in the society are "extracted" from the observations about the divisions of wealth, power, or other means – along the added disadvantages and advantages any misallocations can bring to affected groups and to society.

Whilst the possession of resources can be seen as a mechanism of exerting control, those lacking the resources are perceived as disadvantaged. In the context of political representation and furthermore - in the context of representative democracy - the allocation of seats among different groups should reflect the distribution of power within society. From the egalitarian account of democracy, equal members of society should be governed by bodies in "discussion among equals" - the government should both mirror the balances in society as well as ensure the equality through the means of public affirmation (i.e. voting and elections) (Anderson 2009:214). The ideal of equality and striving for it is relevant not only in terms of ensuring societal justice, but it is also important in securing the quality of representation and establishing a set of (societal) rules further facilitating tendency to embed the principles of equality to norms. The equality is argued to facilitate deliberation and is embedded in the idea of inclusion, the latter of which is important in terms of constructing formal (and informal) norms (Hutt 2018:88) - through the process of voting and choosing representatives, people essentially establish the norms and regulations they themselves follow. Zoning further into inequalities among the distribution of political power resources, the gap between the shares of female and male representatives in governing bodies across the world refers to the unequal distribution of political power. If some participants of the social and political sphere are disadvantaged in the process of decision-making, the power is imposed on these groups (i.e. the decisions are made for them not by them). The imbalance of the "share" of political resources affects the social norms, which in turn can explain the inequalities in the wider social sphere. Furthermore, the inclusion of the groups can alter the processes and decision-making, enriching the political arena by adding the perspective-diversity or (re-)establishing the core value of democracy. For example, the presence of women in the

political arena – even from the standpoint of descriptive representation – is seen important for increasing political trust (Ulbig 2007), political activity, deliberation, and engagement (Atkeson 2003; Wolbrecht & Campbell 2007), all being important democratic virtues. The positive impact of female representatives on political outcomes (i.e. pushing through certain "feminine" policies, for example when it comes to childcare or ecological questions) have been noted regarding different policy concerns (e.g. (Mavisakalyan & Tarverdi 2019; Quamruzzaman & Lange 2016). Inequality in the political arena might be detrimental to the quality of decision-making or inclusion of certain social groups.

Although the "underrepresentation" of women has been referred to when talking about their electoral success – or the lack of it –, the notion of equality should be approached from more specific terms. By looking at the share of female and male representatives across different terms of Riigikogu since the re-independence, the share of female representatives has steadily risen, but stayed below 30% even at its peak in 2019 elections. Although the share of female representatives is notably lower compared to male representatives and female candidates have constantly received less votes than their male counterparts, these differences can be accounted by the combination of several factors, imposed by several "institutions".

As the voters construct the political norms through the representatives they choose, the imbalance of the distribution of political resources can, to some extent, reflect and reinforce the bias of voters through the "institution" of culture. Simultaneously, the representatives the voters have chosen and the political elite they have "legitimised" can also impose their agenda. The pool of representatives and thus the access to political resources can be undermined by inner-party processes. Whilst voters can decide on a desired candidate based on personal preferences or the characteristics of the candidate, the role of the party institutions should not be overlooked. The decisions that have been made "for the voters" already during inner-party decision-making processes precede and thus to some extent limit the choices of the voters. Additionally, the abovementioned actors are bound by the institutional limitations. The decisions parties or voters can make are limited by the electoral rules and regulations. Even though institutional factors can alter the electoral outcome, they do not account for political consequences – whilst they have indirect effect, parties and voters have direct influence over the political outcomes (Colomer 2011, 13–14).

1.1 What affects the success of candidates: explaining the electoral outcome

The problem of female underrepresentation in politics – the observed inequalities in the distribution of political power and the noted gender gaps – have sparked academic interest and produced numerous studies already since 1970s (Fox & Lawless 2011, 59–60). The electoral success of women has been primarily discussed in terms of their descriptive representation. The "numeric" representation of women is the most direct evidence indicating prevailing inequalities in the political sphere. Thus, the underrepresentation and furthermore, the electoral success of the candidates has been studied in terms of "observable" (numeric) changes in the pool of representatives, how well it mirrors the society, and whether some social groups and their possibilities are potentially undermined.

When it comes to academic research, outcome-influencing factors have widely been approached by explaining the electoral success through formal institutional effects, but also by cultural and social factors. Institutional factors as formal mechanisms of outcomealtering have been in focus of most of them. The emphasis on formal regulations is justified by the "intrusiveness" of their implementation and effects: institutions can be considered more open to adjustments to distort the electoral outcome in favour of certain social groups when compared to cultural perceptions which are hard to change, especially in short term (Nkala & Ogunnubi 2015, 135). For example, the effect of electoral systems has been studied in large-N cross-country studies, where the general "consensus" noted throughout academic literature has been the favouring effect of some electoral systems over others (e.g. the positive effect of proportional system in comparison with majoritarian system), the indirect effect of formal regulations (e.g. district magnitude, ballot system, electoral formulas), and direct affirmative regulations for enhancing women's electoral chances (Ballington 1998; Norris 2004; Paxton, Hughes, & Painter 2010; Rule 1994, 18; Shugart 1994, 31).

However, cross-country studies can be argued to be prone to generalising the effects of different factors, overestimating some factors whilst underestimating the effects of local political sphere and culture. Furthermore, the research decisions in terms of simplifying the variables for operationalization to ensure the generalizability of phenomena foster the over- or underestimation of some effects. For example, whilst the positive effect of gender

quotas is considered to be common knowledge, the effect of the implementation of different types of quotas on the electoral outcome can widely differ across countries, with party quotas being more effective in established countries when compared to less developed ones, to bring out some of the differences (Rosen 2017). Whilst the effect of proportional system has been widely regarded as facilitating women's chances, their effect stands out in comparison with other systems – Norris (2004) noted female candidates were almost twice as likely to succeed in getting elected in PR systems compared to majoritarian systems, although the importance of other intervening factors (such as district magnitude, use of quota regulations, party incentives etc) were warned against being disregarded – but the differences within countries with proportional system still prevail. Attempts to minimize the effects of generalisations when measuring the influence of different institutional factors and explaining the distinctions across similar countries have been made by shifts to comparing the differences within similar electoral systems, minimising the overall variety of observed cases but still comparing quite a large number of them. The effect of formal and informal elements affecting the outcome and favouring effects for certain candidates can be argued to be more dependent on contextual factors and how different means regarded as conventional in facilitating women's chances operate conditionally (i.e. in combination with different factors and dependent on the "level" of implementation) (Schmidt 2009). For example, with reference to previous article, the effect of quotas in increasing the electoral chances of female candidates was primarily seen for placement mandates and had little difference in the effect of facilitating women's chances as compared to other "conventional" qualities of female-friendly systems, such as proportional electoral system - thus, the generalizations about the efficiency of some factors in generating better changes for women should be approached with a degree of criticism.

The aggregated effects are important in framing the understanding of different elements affecting the electoral outcomes. Still, the political, social and cultural climate, alongside the formal institutional regulations differ even within the group of similar countries. Hence, the emergence of numerous studies can be observed concentrating on a single country and a small number of elections with an aim to provide a better overview of the causal inferences for explaining the success chances of candidates specifically accounting the effects of political climate and contextual factors. With a candidate as a unit of

analysis, large-N studies still prevail. The focus on candidate-level factors has in turn facilitated the single-country and -election approach, as the problems with availability and volume of the data limit research.

The literature on women's electoral chances have undergone several shifts over the recent decades. Whilst one shift could be noted in terms of the units of analysis, another one can be observed with regards to explaining the changes in the pool of representatives. Although the share of female representatives has generally stayed low worldwide as already mentioned above, there still is a slow but steady increase in the number of women in parliamentary bodies. This increase has been studied in terms of the effects of factors regarded as "women-friendly", where their potential for securing the success of women has been assessed. Whilst the effect of proportional system and quotas were regarded as positively impacting the electoral chances of women, the effect of democracy has been regarded important for the stability and sustainability for the constant growth in the numbers of female representatives (Paxton, Hughes & Painter 2010). Also, with an introduction of gender quotas both on legislative and party level and the changes (or the lack of them) for female representation they are expected to bring upon, perhaps the most widely researched institutional factors affecting women's representation over the last years have been affirmative regulative actions implemented both by states and parties (Bhalotra, Clots-Figueras & Iyer 2018, 1846). The law-embedded quotas for ensuring the representation of certain under-represented groups are suggested to be the most effective measures for moving towards proportionality (Inglehart et al. 2003, 7), especially when the cultural and societal values and attitudes of both selectorate and electorate support these regulations (Norris 2004, 184, 190). These actions differ by the effect they have on penetrating the barriers for women's inclusion and thus naturally have different mechanisms affecting the outcome. Whilst state level quotas regulate the possibilities of women in formal terms, whereby the regulations are equally implemented for all participants in the system, party quotas are exclusive to certain parties and directly regulate the potential of getting elected for each individual candidate within the party. Furthermore, the quotas differ by whether the restrictions are imposed on the positioning of candidates or the number of them, as well as whether the failure to follow the rules are penalized, to bring out some of their distinctions. For example, the quotas regulating the number of female candidates do not necessarily introduce new female candidates to

political positions in some cases, but rather might spike the number of female candidates from among whom the experienced candidates are still preferred (Górecki & Kukołowicz 2014). At the same time, whilst the success of female candidates is positively associated with the re-entrance of female candidates even in cases where regulative actions have not been implemented to alter the electoral outcome, the entry was observed to be even more discouraging to new female candidates who now faced competition with strong and experienced female candidates (Bhalotra, Clots-Figueras & Iyer 2018). Thus, the introduction of affirmative action regulations as well as other facilitating institutional qualities (e.g. proportional system) alone fail to explain the poor electoral success of women, and in trying to explain the lack of effect, other party and candidate specific factors are turned to – studying gender and the occasional inefficiency of the positive discrimination policies has further highlighted gender alone is not sufficient factor in explaining the gender gaps. Candidate-level factors are thus crucial for explaining the prevailing discrepancies in electoral success between sexes and this is also reflected in the literature of the recent years. For example, the electoral success of women has been studied in terms of their probability of getting elected when accounting both potential factors influencing voter behaviour (e.g. the effect of education, religion, income) as well as candidates' qualities, testing the effect of political and professional background, placement on lists, and age in new democracies with established gender quotas - and unsurprisingly, candidate-level factors (and primarily the experience of the candidate) have been proved to yield significant explanations of the electoral outcome (Prihatini 2019). Voters' background did not provide evidence of undermining the chances of female candidates to get elected for some cases (Prihatini 2019), although the perceptions of candidates in terms of their non-political qualities have differed among men and women for other cases (Berggren, Jordahl & Poutvaara 2010). Incumbency has been noted as relevant for electoral success as a facilitating indicator, increasing women's chances of election as well as for bettering positions of the candidates on the electoral lists as an additional factor supporting gender quotas (Shair-Rosenfield 2012). Incumbency has also been highlighted as a supporting factor for ensuring female candidates' success throughout the articles zoning in on the success-factors of women, even though political experience has been deemed beneficial for all candidates. When looking at the effects of incumbency itself, the studies of the impact of gender and

incumbency on party popularity have noted that female incumbents do not "undermine" party's electoral popularity when compared to male incumbents – voters are not necessarily biased against female candidates, rather their electoral chances are supressed by parties, who tend to nominate women for more difficult positions, for example by assigning them lower seats (Esteve-Volart & Bagues 2012; Murray 2008). This bias towards women is argued to strengthen the qualities of female candidates, eventually making them "stronger" candidates than their male counterparts and resulting in electoral success (Fulton 2012), which could provide evidence for why female candidates do better than their male competitors in some occasions.

Experience has been studied in different terms. The effect of local political experience as a "precondition" for national level experience has been studied and found important in explaining the success of the candidates (Tavits 2010), but the local experience and its effect on electoral outcome in national elections have also been studied with regards to the size of district and its potential of increasing personal vote gain (Put & Maddens 2015). Whilst experience has been studied it terms of holding a political seat as a binary indicator of legislative status (Prihatini 2019; Shair-Rosenfield 2012), mostly brushing over the differences of candidates' experiences within non-incumbent groups, attempts have been made to differentiate the effect of legislative candidacy experience from electoral experience on candidates' list position as a precondition of electoral success both in terms of recent and cumulative experience, and again, female incumbents were not stripped from better positions, providing further evidence that women were not undermined when compared to men with similar qualities (Chiru & Popescu 2017).

The positioning of the candidates in the electoral lists has an effect of potential for success on its own. In the context of limited knowledge of politics or many competing parties and candidates, the tendency to vote for candidates at the top of the lists – or phrased differently – the success of top-list candidates in terms of getting elected or receiving votes (Lutz 2010; Marcinkiewicz 2014) – accounts for the lack of success of female candidates when they are declined from top positions. Political experience as well as party-level factors, such as organization, ideology and openness to welcome newcomers has been linked to facilitating female candidates' position on electoral lists (Kunovich 2003). The discrepancies of how party elite perceives the chances of female candidates are also argued to be mediating factors for facilitating women's participation and

therefore electoral chances (Sanbonmatsu 2006). Parties' characteristics, with an emphasis on their structural and organizational composition, can indirectly alter the electoral outcome – for example, the level of centralization of the party and the candidate selection mechanism can produce more favourable conditions for female candidates (Atmor, Hazan & Rahat 2011, 27).

Apart from institutional factors, cultural and social tendencies have been studied in efforts to explain tendencies in women's electoral outcome. For example, public perceptions of female leader's roles have been deemed as important for enhancing the willingness of women to run for elections, parties to select the candidates, and voters to elect them – furthermore, the decreasing gender gap with regards to perceptions of gender roles among younger generation could be positively associated with women's success (Norris & Inglehart 2001). Women's negative self-perception, on the other hand, prevents women from entering the politics and thus allowing the discrepancies to emerge among the pool of candidates and ultimately among the pool of representatives (Fox & Lawless 2011). Exposure to politics, upbringing, sense of efficacy and ambitions as well as the social status (i.e. marital status, children) among other criteria have been studied to determine the factors relevant for even becoming a candidate (Fox & Lawless 2005), as well as the effect of local culture and patriarchy in creating the perceptions of the roles of women can be detrimental to female candidates and their potential for success (Chuki & Turner 2017).

Other non-political candidate-specific elements have also been studied, more so in the field of political psychology. When in terms of formal rules and primary party incentives the studies have focused on candidates' political "virtues", the non-political factors for success have also been zoned into. For example, the effect of perceptions of the attractiveness and likeability of candidates are not alien to the academic literature trying to explain the success of candidates. Attractive candidates are favoured as perceptions of political-position-beneficial personal traits have been imposed on them, which makes them seem more approachable, visible, and competent (Banducci *et al* 2008) – but at the same time, the personalisation of politics can harvest prevailing gender stereotypes and be detrimental to female candidates' success. This has not found strong proof in recent academic studies: the effect of physical attractiveness on candidates' vote share was deemed important for mayoral elections, especially for very competitive ones even with

other variables controlled, however, strong evidence of the unfavouring effect of attractiveness on women's electoral success was not found (Jäckle & Metz 2017; Rosar, Beckers & Klein 2012). In terms of proportional systems, physical attractiveness was found favouring for their relative vote success for non-incumbent candidates for both genders, but not for women or men exclusively (Berggren, Jordahl & Poutvaara 2010).

The research on female underrepresentation has explained the "phenomenon" with institutional, party, and candidate-specific factors, which directly or indirectly alter the behaviour and choices of voters and thus result in electoral outcomes – and the potential inequalities in the distribution of political positions. The barriers for female candidates can also be studied at different stages of candidacy process – for example, the factors influencing candidates' decisions and opportunities provided by the party for even running for candidacy can alter the pool of candidates and thus the pool of potential representatives. Hence, the translation of women from the members of parties to candidates and only then to representatives encompasses variety of elements that can alter the electoral outcome and composition of governing bodies. However, whilst the electoral outcome is directly influenced by the institutional constraints, the actors of political sphere also operate within these regulations, adjusting their own incentives with the electoral outcome of candidates and female candidates and female candidates specifically.

1.2 Path for electoral success: the incentives of political actors and actors in political sphere

The political outcome is influenced by several formal and informal factors leading the decisions of different political actors. On the widest level, the electoral outcome is regulated by the state-level formal factors, referring to the effect of electoral rules – electoral systems, ballot types, district magnitude, threshold, or even state-induced rules for positive action (e.g. quotas, reserved seats) – which can alter the electoral outcome from the standpoint of equality in representation. At the same time, the decisions regarding translating members to candidates and deciding their chances for electoral success by, for example, list-positioning or campaign-financing, are party-level decisions,

where the values, leadership, their motivations, and the organizational structure of the party determines the pool of potential representatives and can, thus, affect the composition of representatives. Lastly, the factors related to candidate's vote-gaining assets can be brought out. The "candidate-level" factors refer to indicators that explain the success of the candidate at least partly by their individual characteristics, background, and experience (Cain *et al* 1987 cited by Riera 2011, 59). As an informal set of societal norms, also culture, socio-demographic factors, perceptions of gender roles, and risks for women can alter both the electoral outcome as well as influence the incentives of becoming a candidate.

Whilst these levels of factors affecting the success of female candidates can be differentiated, it should be noted that these factors are still intertwined and not exhaustive. It has been argued that formal rules, party and elite incentives, socio-demographical dynamics, and role perceptions can be interrelated and altogether affect the potential for the success of candidates (Eder, Fortin-Rittberger & Kroeber 2016, 371; Rule 1994, 15). State-level factors can be considered as basis for parties', candidates' as well as voters' decisions. For example, the ballot structure can affect party motives for including diverse pool of candidates – whilst party-ballots theoretically introduce more diversity among the candidates due to social pressures and potential for electoral penalty, candidate-ballots are generally free of these "threats" and parties are not held collectively accountable, leaving more room for potential bias (Norris 2004, 14). At the same time, it is strategic to include well-known candidates at the top of the lists as they can pull more votes, for voters to vote for them as they can assign certain value to the candidate based on their political experience or social position, and for candidate to run for elections as their position is likely to minimise the risk of not getting elected.

The behaviour of political actors can be analysed by employing different theoretical approaches. For example, the cultural values and perceptions of the roles of men and women in society can alter the incentives, nomination and selection of female candidates and are analysed by employing cultural and sociological modernization models. It is presumed the existing governing bodies do not only reflect prevailing values in the society, but also can recreate the understanding of which qualities and characteristics the successful candidate has to have (Norris 2004, 184). The lower success of female candidates is explained by the societal norms – for example, the share of female

representatives has been lower compared to male representatives and thus the social understanding of how the governing body should look like might be skewed. Cultural modernization theories argue the perceptions and values within societies are resulting from human development (Inglehart *et al* 2003; Norris 2004, 184–85; Zimmerman 1994, 4). Even though the electoral systems are believed to enhance the chances of female candidates to become elected, the differences between systems were not so prevalent before the end of 20th century, allowing to argue any institutional rule might have interacted with other cultural developments (education, labour market and workforce structure, roles and inclusion of different social groups etc), resulting in less exclusive and more egalitarian choices for political actors (Norris 2004, 203).

Other approaches focus more on formal institutions. The behaviour of (political) actors is driven by self-interest, which in turn, is affected by the incentives and limitations of the political regulatory sphere and context where the action takes place – institutional context is essential for assigning some actors interests in analysing politics (Weyland 2002, 58). Rational choice approach has proven to explain and provide a good basis for analysing political decision-making as it relies on the instrumental interests of actors which – even when it does not necessarily hold for each individual actor – describes the incentives of the larger group of actors as a whole in competitive arena (Norris 2004, 13; Weyland 2002, 59). It is a beneficial tool especially for analysing political actors' behaviour, as their actions are generally led by reliance and altering of the behaviour based collecting information and learning (e.g. collecting information about voter preferences, relying on previous election outcomes in trying to assess the potential of winning, voters holding incumbents accountable for failing to conform their expectations at the office), and because the aggregation of actors' behaviour balances out inconsistencies or deviances in the rationality assumption (Tsebelis 1990, 33–37).

For understanding the strategies of political actors' behaviour, forming hypotheses and explaining the outcomes, rational choice institutionalism approach will be elaborated on further in this thesis in attempts to lay a basis for the interpretation of the results of analytical models.

1.2.1 Rational choice institutionalism and the rational-institutional logic of political actors and actors in political sphere

The institutionalist approach encompasses analysing institutions and their effect (Diermeier 2015, 18) - the focus of institutionalist theories lies in addressing which role and to what extent institutions have in affecting certain outcomes. In the context of electoral success, institutions and the "logic" of the system itself can be perceived as rationale for both party and voter decision-making.

Taking the institutionalist approach, the focus of explaining the electoral outcome and success of certain candidates lies in the choices and competition of actors influenced by institutions (Diermeier 2015, 16; Tsebelis 1990, 46). Rational choice institutionalism "explains the observed variation in political behaviour by stressing the incentives and constraints created by the specific institutional rules that political actors face"(Weyland 2002, 59). The emphasis of rational choice approach is on the limitations that have been posed on rational actors within the society – namely by the institutions of the society – which affect the behaviour of actors and therefore also the societal-electoral outcome (Tsebelis 1990, 40). Institutions refer to the formal regulations and elements of societal sphere (laws, procedures etc) (Alasuutari 2015, 165), which act as "institutional parameters" affecting actors' political choices in hopes of reaching their interests and goals (Weyland 2002, 60). Their effect would appear mainly on the electoral outcome and is expected to influence the political outcome indirectly through the behaviour of political actors (as illustrated in Figure 1, pp 23) – regulations affect voters' and parties' behaviour in elections directly, and, in turn, parties' decisions (e.g. candidate selection) affect voters' decisions indirectly, ultimately "resulting" in electoral outcome affected by the rational behaviour of actors in political sphere. Institutions serve the interests of political actors and are created and maintained to serve these interests (Tsebelis 1990, 8). They are perceived as game rules ensuring personal interests of political actors (or more so those who are in position to control the institutions) in a sphere of "collective action" (Weyland 2002, 60).

This approach highlights the interests of political actors. It is presumed the incentive for political action is electoral success. According to rational choice institutionalism, the preferences of the participants of political sphere are set and the behaviour should be led

by the idea of maximising the outcome, based on presumed knowledge of other actors' behaviour and to avoid penalty (Alasuutari 2015, 165; Tsebelis 1990, 30; Weyland 2002, 58–59). The actors are expected to rely on their options and probabilities of gaining success. Their assessments are based on previous information and assessing new changes in the environment (Tsebelis 1990, 29). Assessments of political success are based on the previous elections as well as the predicted effect any new situations have brought. The actors will then adapt their behaviour to ensure the outcome that would increase their potential for success. It is also presumed actors have no motivation to deliberately deviate from their expected actions - deviation in the course of action should be attributed to the irrationality of the previous course of action (Tsebelis 1990, 41). The actors that do not follow the "logic" of instrumental rationality would be left out in competition where other actors tend to be rational, which would eliminate the former group and further perpetuate rationality and strategic electoral practices (Norris 2004, 13). Political decisions of the actors – especially in competitive context – are thus expected to be led by the assumption of furthering one's career (Weyland 2002, 58). The collective goals (such as those pursued by parties as units) are presumed to follow the same logic of instrumental rationality, where the end goal would be maximizing party's success (Norris 2004, 13) the incentives of political actors are instrumental and led by personal goals, and both institutional and individual actors aim for reaching the best possible outcome for their goals (Tsebelis 1990, 6). At the same time, whilst the choices of political actors and their outcomes are led by the assumption of rationality, it does not mean they should be interpreted as efficient per se (Tsebelis 1990, 26). Since the outcome is a result of knowingly made decisions of different political actors, it is expected to be a result of the optimal choices of actors.

In terms of the topic of women's electoral success, the incentives of behaviour of different political actors – and actors involved with political sphere – are what can be considered the underlying decisions steering the success of women in political sphere. From the standpoint of strategic and rational approach, for example, proportional electoral systems are believed to benefit female candidates as parties are more motivated to present all-inclusive lists for multimember constituencies in efforts to appeal to wider electorate and prevent electoral penalties, have higher incentives to adopt affirmative strategies favouring more equal distribution of positions due to decreased electoral risk, but women

also stand better chances as incumbents are less likely to rerun for a position with increased competition and – in combination with preferential voting – electoral penalties (Karvonen 2011, 133; Norris 2004, 188–90). Furthermore, district magnitude can be argued to be beneficial for women not only because higher magnitude decreases competition for votes and seats, but also since parties can nominate more candidates they are more inclined to include newcomers – especially when incumbents sense they stand less chance for maximising their personal vote gain due to distribution of votes across the many candidates or when they have been penalized by the electorate due to weak responsiveness to district voters (Katz 1994, 99–100; Norris 2004, 232; Rule 1994, 18). This enhances the opportunities for women who have generally held political positions in less occasions.

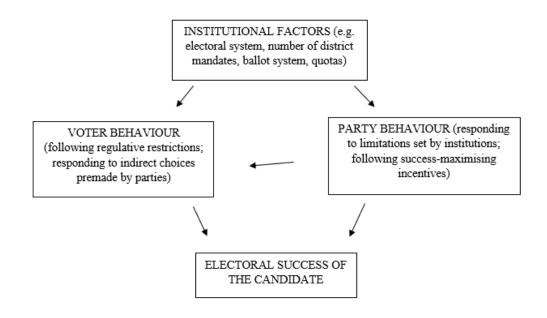


Figure 1. The effect of institutional factors on the incentives of actors and electoral outcome (modified from Norris 2004, 8).

However, the effect of ballot system on political actors' rational behaviour and thus the potential for female candidates to succeed in electoral competition can be considered very influential as it regulates the paths of possible behaviour of parties and voters perhaps the most directly (when not including the effect of quotas). Based on the choices made available for voters in different types of ballots, each of these ballot types are believed to alter the chances for female candidates differently. For example, preference-ballots

harvest the potential benefits the candidates offer for parties' success - inclusion of the variety of candidates is encouraged and since the candidate is responsible for their personal success and voters can rearrange the rankings of candidates parties have proposed, parties face minimal risk for including female candidates to open lists (Shugart 1994, 37). Whereas for party lists, parties have a high incentive to include a variety of candidates from among different social groups to avoid electoral penalty and attract variety of voters from respective districts (Norris 2004, 14; Rule 1994, 18), although parties may exert exclusive requirements for candidacy (e.g. membership status, loyalty) (Atmor, Hazan & Rahat 2011, 24), which can alter electoral outcome and give heads-up to incumbent, successful - "established" - candidates, again disregarding newcomers and thus often women. From the candidate specific qualities, political experience has been highlighted as one of the core success factors of a candidate. Incumbency is attractive both for parties aiming to maximise their possible share of votes within institutional limitations as well as to voters seeking to secure their voice to be heard. Incumbents are also expected to have personal incentives to respond to the "demand" of other actors. When a candidate has been a member of governing bodies, they already have some support from the electorate thanks to their record of governing experience, as well as they usually can enjoy the financial and public benefits due to their position (i.e. the benefits provided by and to the successful party or the publicity the candidate gets when being selected, being part of the working processes of governing bodies and having their name exposed to the public in formal documents or even party lists) (Norris 2004, 182; Zimmerman 1994, 9). Incumbents also may have an access to their personal staff who would be at least partly responsible for taking care of candidate's promotion and possible re-election as well as they can use some of their official activities and finances for campaigning purposes (Zimmerman 1994, 9). Whilst political experience is beneficial for individual candidates, non-incumbents face hard time reaching the office. Given the constraints posed by electoral rules and expected rational behaviour from political actors to respond to these limitations without undermining their chance of success, incumbents are prioritised and non-incumbents often placed on "marginal" positions. This does not only limit the possibilities for non-incumbents, but indirectly also for social groups that might not be represented among the majority of incumbents. Candidate level characteristics thus can both offer explanations for electoral outcome as well as shed a

light on the factors behind distribution of political resources. When institutional constraints are set for candidate level factors – such as the use of term limitations – the chances of electoral success increase not only for non-incumbents, but expectedly also the social groups that have been underrepresented (e.g. women or ethnic groups) (Zimmerman 1994, 9).

Candidates have limited resources when it comes to promoting their candidacy. It is thus expected that politicians – as well as presumably the parties – prioritize their chances based on expected outcome. When candidates or parties stand a good chance of getting elected, they have more incentives to invest their time and other resources for trying to gain electoral support. From the perspective of vote-seeking rationality, it is thus expected that the individual decisions of the candidates are led by the institutional composition – based on the type of ballots, for example, the candidate can adopt more district- and voterbased promotion strategy in efforts to maximize individual vote share, or, on the other hand, maximize their chances of election by focusing on appealing to inner-party decision-makers and promoting programmatic values (Norris 2004, 13). It is up to candidates whether they tend to focus on party values, leader- and membership, or concentrate their focus on the electorate (Norris 2004, 233), but it can be presumed the decision is dependent on the chances of getting elected purely based on the votes (e.g. from open lists) compared to getting elected through favourable position in successful party's list (Karvonen 2011, 132).

The strategy of list-composing gives an insight to explaining the electoral outcomes. Whilst the formal institutional regulations state and limit the decisions parties make in choosing their candidates and structuring the lists, the vote- and seat-seeking incentive alongside the rationality clause may be detrimental to certain candidates or candidates representing some social groups. Since the information about the preferences of the voters is limited, the parties tend to opt for "working formulas" in selecting and composing the candidate lists (Norris 2004, 234). A risk-minimizing strategy is to choose and promote candidates that have already proven to be successful or who share similarities with those who are successful – this rationality assumption is also used to explain why the pool of candidates might be disproportionately representative of certain social groups or clusters at the expense of others (Norris 2004, 13).

Whilst formal rules can increase the opportunity for electoral success for women, it does not mean women necessarily get elected – this is, in turn, dependent on the incentives and series of actions of different political actors. Electoral rules can, however, positively alter the outcome for the benefit of women should the social "context" be unfavourable – and, *vice versa*, the public choices of voters can alter the results, to some extent, regardless the procedural limitations (Rule 1994, 16).

Rationality assumption does not have to be the leading factor for all political decisions, but the rational choice approach should be considered beneficial tool for explaining the behaviour of political actors when their incentives and relations within a political sphere can be established. Although setting a good basis for comparisons by providing an analytical framework for assessing the incentives (and outcomes) of political behaviour of different actors, rational choice approach to institutionalism theory still poses some limitations. In fact, the conditions of pure rationality are argued to be harder to meet than those of non-rationality (Tsebelis 1990, 23–25). The comparative and universalist nature of rational choice institutionalism comes from the simplification of the processes and motives explaining the behaviour of political actors which can overemphasise or underestimate the role of some factors at the expense of others (Weyland 2002, 62), fail to explain the paths when multiple optimal behaviours are presented, when actors are willing to deviate from the rationality-principle to secure their values, or when it comes to "crisis" situations where actions are likely not led by the call for rationality (Tsebelis 1990, 28,30,38; Weyland 2002, 73). This "simplification" can also overlook the power culture, norms, and other societal values have exerted over both institutions and the behaviour of political actions (Weyland 2002, 74). However, whilst the conditions of rationality are hard (or even impossible) to transfer to actors' behaviours in the "real world", it is still perceived as an useful approach to reveal the factors steering some phenomena under research (Tsebelis 1990, 32).

Rational choice institutionalism approach has been taken as basis for trying to explain the electoral outcome of candidates as well as for relying on the notion of rationality and institutional constrains when mapping the elements of interest when testing the effects of different factors. The use of rational choice institutionalism approach for framework and hypothesis formation is suitable for given thesis as no cross-country comparisons are made, the institutional settings have remained unchangeable over the period analysed,

and the stability of political and party system allows to presume the actors have established certain strategies leading their political behaviour based on information from previous elections.

2. Design of analysis

The studies focusing on the electoral chances of female candidates have observed their success mainly in terms of the electoral results of the candidates, but also based on their positions on electoral lists, which would allow to assess the potential biases of parties against women. Vote share of the candidates is commonly referred to as an indicator of candidate's success, where logit transformation has been used in some of them for dealing with the variances between vote shares (e.g. Marcinkiewicz 2014). Success is also referred to in terms of the probability of getting elected (e.g. Schwindt-Bayer, Malecki & Crisp 2010). However, the approach to studying list positions can differ, with the dependent variable referring to "winning seats" (e.g. Esteve-Volart & Bagues 2012), "top seats" (e.g. Kunovich 2003) and "bottom seat" (e.g. Marcinkiewicz 2014), or "win margin" (e.g. Fiva & Røhr 2018) to name some possibilities. The use of binary variables can be explained by the attempt to account differences in what electable seats are for a party – the popularity of the party determines the positions that could be regarded viable and secure for getting elected and thus it differs for each party. However, binary approach (e.g. top positions) disregards a lot of information (Allik 2015) and does not explain the situation for candidates in lower positions. Thus, continuous variable for party list rank might be preferred to see whether values and strategies of parties reflect in the associations of different candidate-specific variables.

As previously mentioned, a shift of focusing on single countries or elections can be observed in the academic literature regarding the works aiming to map the factors influencing the electoral success of candidates. However, studying the effects of factors on electoral outcome on the level of candidate faces practical limitations in light of difficulties of retrieving data, which can further limit the interests of study and force the effects of some variables to be studied on more general level (i.e. when there is little chance for retrieving candidate-specific data). At the same time, with candidate as a unit of analysis and usually a single country or election under study, the generalisations of effects that might arise when comparing different countries, electoral-formal and sociocultural environments and elections can be avoided, which in turn allows to interpret the results in certain institutional and political contexts. When the limitations of data collection are overcome, the candidate-level analysis expectedly offers valuable approach to studying the effects of different factors on electoral outcome, allowing to explain these outcomes on the level of "causal mechanisms" (Allik 2015). Furthermore, candidate-level analysis still usually provides a pool of candidates big enough for being able to apply quantitative methods for analysing these effects and drawing meaningful insights based on the results of statistical models.

Candidate-level analysis has been opted for in this thesis. The selection of elections for given thesis was somewhat "predetermined" by the previous work done by Mirjam Allik as it was aimed to test the analytical framework as well as the effect of additional variables on recent data to fill in on the information of the situation in Estonian "electoral sphere". At the same time, the peculiarities (e.g. the use of both open and closed lists) and the stability of Estonian electoral system made it interesting and viable country to study. Simultaneously, it should be acknowledged that primarily the wide range of available data as well as the "approachable" number of candidates (i.e. the number of observations is high enough to provide meaningful insights of the effects but small enough to manage the data collection with relative ease) makes Estonian elections extremely valuable for candidate-level research.

2.1 The electoral rules of Estonia

Estonia has a proportional system with a form of casting preference ballots. Voters can cast a single vote for a candidate, who can be an affiliated party member, run in a party list or as an independent candidate. When a vote is cast for a candidate that is running for elections in a party list, the voter simultaneously votes for a party. There are no legal state-level restrictions governing the proportion of candidates, reserved mandates or other means of legal positive discrimination. With an exception of Centre Party which uses ziplock method for distributing the top 12 position on national lists, Estonian parties have not officially included party quotas in efforts to regulate the composition of lists or pool of candidates.

Seat distribution is determined in three tiers. The voters exert direct preferential vote over determining which candidate receives personal mandate: the candidate who receives more votes than district quota will be elected. Preferential element is also apparent for assigning

district mandates: seats are allocated based on each 0,75 Hare quota the party list has collected, where the candidates with highest vote shares (that constitute at least 10% of Hare quota) in the districts will be elected. Lastly, compensatory mandates are allocated to candidates based on the party's vote totals, where candidates ranked higher up the party list will get elected. Although the compensatory mandates are determined by closed party list principles and are dependent on the party's total vote share, it is argued that the third tier also composes preferential vote element – namely, the candidate has to surpass a threshold of 5% of district's Hare quota to get elected through compensatory mandate (Karvonen 2011, 126). At the same time, although the information about parties' closed list composition is made available prior the elections, these lists are not showcased to voters in polling stations or in other means of voting, and thus the voters' effect (or voter bias) would be limited in explaining the election of certain candidates when it comes to closed lists (Allik 2015, 435).

Observing the factors for candidate success in Estonia is especially interesting because of the two types of lists that determine the election success: open and closed lists. These lists should have inherently different effect for parties', candidates', and voters' incentives in explaining their political behaviour. Colomer (2011, 9–11) lists Estonia as a system with "semi-open" ballot systems, which theoretically gives a voter multiple choices – as the distribution of mandates is made on different levels – even though only one vote is cast. This semi-open form of ballot should emphasise both candidate-party and candidate-voter interaction, where personal and party representation are compatible and thus the incentives of political actors can be explained by the appeal to both (Colomer 2011, 15). Karvonen (2011, 120-21) classifies Estonia as a "flexible" variety of preferential vote, where preferential voting is relevant in determining the electoral outcome in district lists, whereas the parties exert control over the electoral success (getting elected) of candidates in party lists. Thus, the analysis of the factors determining electoral success from open lists as well as the underlying factors influencing the composition of closed lists should indicate what affects the success of candidates. Furthermore, it allows to shed a light on what features have been favoured by political actors when it comes to explaining the composition of Riigikogu – and more specifically, whether the lack of female candidates in the parliament can be attributed to gender bias by the electorate or whether it is the party selectorate that tends to prefer male candidates.

2.2 Hypotheses

This thesis and the following analysis sets two goals: 1) replicating Mirjam Allik's analysis also for 2015 and 2019 Estonian parliamentary elections and thus filling in on the pre-existing information; 2) adding additional variables and testing whether and what effect they have on the electoral success of candidates.

The rational choice institutionalism approach has been used as basis for assumptions to formulate the hypotheses explaining the electoral success of candidates. It is presumed the political actors' decisions are influenced by the institutional rules. Parties are led by their vote seeking objective, whilst voters are expected to vote for a candidate with the winning potential to not waste their votes. Whilst the unit of analysis is a single candidate at one election, the effects will be tested on individual-level, rather than country-level.

To start off, in her article, Allik (2015) has focused on the effect of gender on the electoral success for 1992-2011 Estonian parliamentary elections. More specifically, she looks at whether gender has an effect on votes and draws conclusions about the effect of ballot types, associating the probability of getting elected from open or closed lists with voter and party bias, respectively. Whilst the literature on the effect of institutional factors and namely of ballot types on the electoral outcome has remained somewhat contested, the positive effect of closed lists was attributed to both voter and party behaviour, where parties balance the potential bias of voters by positioning female candidates in winnable positions. Voter bias was expected to be reflected in lower votes and election probability of female candidates, which would prove that open lists are less beneficial for ensuring female candidates who have received compensatory mandates, as in the case of Estonia, the distribution of these mandates depend on parties' success in districts (Allik 2015, 435).

Following Allik's analysis with the compatible methods employed and data used for 2015 and 2019 elections, general hypotheses can be presented to frame the objectives of this study. When observing the composition of representatives in Riigikogu and the visible difference in the share of men and women in the parliament, a bias could be presumed affecting the electoral success of female candidates. Thus, the effect of being female on the electoral success is tested. Whilst the success can be defined both in terms of the individual votes candidates manage to gain as well as the seats they receive through the allocation of personal or district mandate, the electoral outcome based on gender is evaluated for both indicators of success. Thus, it is tested whether

H1: female candidates receive less votes than male candidates,

and

H2: female candidates are less likely to get elected from open lists than male candidates.

At the same time, the "peculiarity" of Estonian electoral system and the use of both open and closed lists also calls for analysis of national lists. About a fifth of the seats are still allocated through compensatory mandates and the share of women receiving compensatory mandates has remained stable throughout elections regardless the overall decreasing number of seats allocated through national lists. The placement of candidates on national list is crucial for receiving a compensatory mandate. National lists can both introduce new candidates to parliament who have little chance of receiving personal or district mandate, or it can also secure the chances of getting elected for candidates with relatively good chances of getting elected from open lists. Hence, the higher the position of the candidate, the better chances of getting elected the candidate has. The effect of gender is tested on the placement of candidates on national lists. Given there is little electoral risk in placing women higher on the lists, it is tested whether overall:

H3: female candidates are favoured in placing them higher on national lists than male candidates.

However, since the national lists are up to intra-party decisions, it is presumed that there are differences between parties and their list-composing strategies and thus the effect of gender is tested separately for each of the parties in each election.

At the same time, as the extensive literature on the effects of candidate success suggests, gender alone is not viable in explaining the potential differences between male and female candidates. Thus, other variables influencing voters' decisions, namely candidate's position in district and party lists, incumbency, age, and the vote share of the party are

controlled to test the effect of gender on votes as proposed by Allik in her analytical framework (2015). Furthermore, additional variables accounting for the cumulative legislative experience, party membership experience, and education are added and controlled.

Both parties and voters are presumed to prefer experienced candidates. For parties, the incentive to favour incumbent candidates is their background: these candidates have proven to be successful in collecting votes and therefore can be seen beneficial in increasing the party's vote share. Also, experienced candidates may attract enough votes to earn a party multiple seats in a district. This is beneficial both for parties hoping to maximise their seat gains as well as other, perhaps weaker candidates who would not have stood a chance in getting elected without the gained mandates of a strong candidate. At the same time, voters are expected to vote for candidates that have electoral experience as they can assign a value to their work and thus minimise the risks of voting for unfavourable candidate due to lack of information.

The incumbency-effect could also be looked into more specifically. In Allik's work (2015) incumbent is a member of parliament, European parliament, or a minister at the time of elections. As the candidate is in the public's eye at the time of elections and thus might be more visible for the voters, and in turn, also more attractive for parties, incumbency can be seen as an important factor for determining a candidate's success. At the same time, one could also assume that the political experience, and especially legislative experience is associated with candidate's higher vote share and probability of getting elected. The more time candidate has spent as a member of parliament, the more "appealing" both for voters and parties.

Several aspects can be tested when the effect of political experience is examined. Theory suggests voters can prefer male candidates when choosing from among non-incumbent candidates. Political actors tend to favour non-incumbents who resemble the pool of incumbents, which further means harvesting as well as recreating the understanding of the profile of typical representatives (Fox & Lawless 2005, 646; Norris 2004, 182, 184). Since most of the incumbents are male, the parties as well as voters may prefer male candidates. Thus, the effect of the "lack of political experience" is tested – it is analysed,

whether there are differences in success chances for male and female candidates who have no legislative experience and run for the elections first time. Once first-time candidates stand little chance of getting elected in the first place, the difference is tested for vote share:

H1.1: female first-time candidates are associated with lower vote share as compared to male first-time candidates.

One could also test the effect of candidate's party membership experience. Party could be more motivated to favour the candidates who have been party members longer. The effect of party membership could be especially notable for the closed lists, which are directly composed by parties. It can be assumed a party would favour their members more than non-members in party lists. If in some cases the inclusion of non-affiliated candidates were led by the wish to include well-known people in party lists (e.g. politicians who have had previous political or party experience, but have "changed the sides" or publicly known people, such as actors, singers etc), they would gain more directly from their inclusion in open lists, whereas for closed lists where the voter has minimal chances of affecting the election of a candidate, parties would favour candidate's membership status. Although elected non-affiliated members still can belong to a party faction in Riigikogu just like party members, it is expected that party membership could explain the success of a candidate both in terms of appealing for voters who are more inclined to vote for a party and might prefer a candidate affiliated with the party. At the same time, membership could explain the placement of candidates in national lists when parties value membership loyalty.

Continuing on other candidate-level factors, candidate's age is controlled for. At the same time, also candidate's placement on national and district lists are controlled – expectedly, better positions on both lists could be presumed to increase the visibility and gains for top candidates. Although the placement of candidates should not matter for preferential voting for open lists, the better position of candidates could harvest votes from voters voting for party (unsure of their preferences towards certain candidates). Even though national lists are not presented at the time of casting a vote either in polling stations or other mediums of voting, the lists are publicly available and it is presumed the favoured candidates are positioned at the top of both lists. Furthermore, the popularity of the party

is controlled. The allocation of seats is determined by the collective votes gained by party list in a given district. Hence, the electoral chances of candidates are affected by the popularity of party list within a district and should be accounted when assessing the factors accounting for electoral success of individual candidates.

Allik has also included district magnitude as an explanatory variable for testing the electoral probability of female candidates in smaller and larger districts. Based on a presumption that larger districts favour women in terms of decreased competition, it can be tested whether:

H2.1: female candidates have a higher chance of getting elected in larger districts than in smaller districts,

and

H1.2: larger districts are positively associated with female candidates' vote share.

2.3 Operationalisation of variables

The electoral success of candidates is indicated and tested using two dependent variables: the vote share of a candidate and getting elected. Furthermore, the placement of candidates in national list is tested with the third dependent variable, which refers to candidate's rank on party list. Quantitative methods are found suitable and applied for analysing these dependent variables, as given methods are widely used in academic studies for studying similar phenomena. Furthermore, statistical methods are called for due to the "volume" of cases (i.e. the number of candidates) as well as to secure comparability when replicating the models proposed by Mirjam Allik. Based on the "characteristics" of dependent variable, either multiple regression analysis or logarithmic regression analysis are used. Statistical analysis is conducted using the program R. Large-N design is applied, with a single candidate a unit of analysis.

When measuring the success with the regards to candidate's vote gain, the variable of vote share of a candidate is modified, following Allik's analysis (2015, 436). The dependent variable for regression model estimating the effect of gender on votes is the logit transformation of candidate's votes:

$$y_c = log\left(\frac{v_{c/V_d}}{1 - v_{c/V_d}}\right),$$

where Yc – logit transformation of candidate c vote chare,

- v_c the number of votes a candidate c received,
- V_d the number of votes cast in district d.

The logit transformation of vote share is used as it is deemed useful for treating variables which are highly skewed, allowing to present the relationships between different variables "in proportional terms" (Hardy 1993, 56). As the dependent variable is hereby a continuous variable of vote share, the appropriate method for analysing the vote share is multiple regression analysis, which allows to test the effects of candidate-, party-, and state-level factors on candidate's vote share.

For testing whether open lists are less beneficial in terms of getting elected for female candidates as compared to male candidates, a dependent variable of "getting elected" is used. This is a binary variable for which the value "1" indicates that candidate received either personal or district mandate (i.e. the candidate was elected from open list), and the value "0" indicates that candidate was not elected or was elected through closed list. With a binary dependent variable, logistic regression analysis is suitable for testing the probability of getting elected.

Since Estonian electoral system introduces two lists which "behave" inherently differently – the success of the candidates for open lists are determined by the preferences of the voters whereas for national list, the ranking of the candidate first and foremost determines the chances of getting elected from party lists. Thus, for testing which factors contribute to the composition of party list, the effect of candidate-level factors have been tested to explain the ranking of candidate in a national list, the latter as a dependent variable. Ranking, again, is a continuous variable, allowing to apply multiple regression analysis method for testing the effects of variables.

The information about dependent variables and most of the independent variables (e.g. age, education, district magnitude, position in district and national lists, party's vote share in district) have been retrieved from the data provided by the Electoral Committee.

Allik has included several control variables in her analysis for testing the effect of gender on candidates' electoral success (2015). To start off, a variable reflecting the recent political experience of the candidate – incumbency – is a binary variable, which indicates whether candidate was either a member of parliament, member of European Parliament or a minister at the time of elections. The value "1" refers to candidate who held either of the abovementioned positions at the time of elections, and "0" refers to candidate who held neither of these positions. Data for this variable has been retrieved from official webpages of Riigikogu, European Parliament, and Republic of Estonia Government.

The variable of age refers to the age of the candidate at the time of elections. The ranking of candidates both in district and national lists refers to the numerical position of the candidate in both lists for given election. Party votes indicates the "popularity" of the party in a district – that is, the collective number of votes candidates in a party list received in a district. For simplifying the interpretation of this variable, party votes have been converted (i.e. the votes are divided by 1000) – the variable would thus indicate the association for a change in 1000 votes received by the party. Information about all these variables are retrieved from Electoral Committee.

In addition to variables proposed by Mirjam Allik, the general availability of data for Estonian candidates allowed to add other variables for testing the factors affecting electoral outcome. Whilst incumbency refers only to recent political experience, the cumulative legislative experience was added. Legislative experience variable refers to the time candidate has spent as a member of parliament. It can be presumed the experience in holding position on national level would be considered important in affecting the chances of candidate. When in the prior studies, previous political experience has rather been approached in binary terms (e.g. Schwindt-Bayer, Malecki & Crisp 2010) or has scarcely been used for explaining the positions of candidates on lists (e.g. Chiru & Popescu 2017), this work aims to add the variable of "cumulative parliamentary experience" for analysing its effect on the three dependent variables. The time candidate has been parliament member has been summarized for all the terms from 7th to 13th Riigikogu up until the day of elections studied. The term of Riigikogu was counted from the date the election results were certified until the date before the results of next elections were certified, except for 13th Riigikogu term, for which case the day of elections was

counted as the final day of term¹. Parliamentary experience is a continuous variable, where the values present the time the candidate has spent as a member of Riigikogu in years². Information about the time spent as a member of Riigikogu and any chances in the composition of Riigikogu during the terms was retrieved from several sources due to occasional discrepancies between sources found during the data collection process. This, however, allowed to compare the information between different sources and ensure the credibility of the data. Information about membership status was retrieved from official web page of Riigikogu or official statistical documents-overviews composed by experts. Legal documents stating decisions regarding becoming, stopping, or declining membership during the term were turned to when it was necessary to control the accuracy of information retrieved from aforementioned choices due to observed differences.

Candidacy experience refers to the number of times a candidate has run for parliamentary elections (regardless their party affiliation). Whilst the focus is on the candidates who have no previous experience in running for elections and therefore also no legislative experience, a binary variable is used, where value "1" refers to newcomer (first-time) candidates, and value "0" refers to candidates who have had previous candidacy or legislative experience. To determine the candidacy experience of a candidate, the number of times candidate had run for the elections prior the elections being analysed was counted. Experience was counted for each time a candidate had run for elections from 1992 elections by looking through the electoral lists. The lists are accessible via Estonian Electoral Committee web page. Although the effect of candidacy experience was originally planned to be tested, it deemed hard to differentiate the effect of running as a candidate from the effect of being a parliamentary member – the first would explain the latter. Thus, it was rather zoned in to whether being a newcomer in parliamentary elections could explain the poor electoral success, and furthermore, whether the effect of being female would differ for first-time candidates.³

¹ Alternatively, a period between the first and last sitting could have been counted as a term of Riigikogu. However, most documents the information was retrieved from accounted the membership already before the first sitting and thus the term was specified based on result-certification dates. Given the variable indicates experience in years and the time period between certification of results and first and last sitting is relatively short, there is no substantive difference in which indicator is chosen.

 $^{^{2}}$ If a candidate was nominated for a seat in Riigikogu and he or she declined the seat the same day, their experience have not been accounted.

³ There were cases for both elections where the candidate fell into both the categories of incumbent as well as newcomer. This occurred when a candidate was placed on political position or had had prior candidacy

Party membership experience is a continuous variable referring to the time the candidate has been a member of a party in whose list the candidate ran for elections. If the candidate has been a member of several parties or has registered as a member of the same party several times, the latest registration prior to elections has been taken account. Any candidate who has joined the party after the final day of presenting party lists to national electoral committee (45 days prior the elections) but before the election day has not been marked as a member of a party.⁴ Membership experience was calculated from the day of joining the party until election day. It is expected that since parties also gain from the membership fees (Scarrow 1994, 42) –, the parties would be more inclined to "give back" to their members, especially when it comes to list placement. Voters casting their preferential votes based on their party preferences might prefer candidates affiliated with parties. ⁵ Data for measuring party experience as well as determining the gender of the candidate was retrieved from e-Business Register.

Overall, all the data for operationalizing variables is retrieved from official and credible sources. Hence, the data used has been considered trustworthy. Furthermore, as the overview of the operationalization of variables indicates, the variables themselves are straightforward and thus problems in terms of validity are not foreseen. Biases with regards to data and its translation to variables can occur due to errors that could have been made when entering the data, however, upon checking the data prior the analysis any logically invalid values resulting from incorrect entry of data were corrected.

The created "database" consisted of 861 and 1084 observations for 2015 and 2019 elections, respectively. Independent candidates were removed from among the cases studied as the "groups" of independent candidates was not numerous, their vote share was

experience, but not on parliamentary elections (e.g. for Maris Lauri and Anne Sulling for 2015, and Janek Mäggi, Indrek Tarand and Riina Sikkut for 2019 elections). These candidates were marked as incumbents only (i.e. they were not treated as newcomers).

⁴ If the candidate has left and joined the same party again within a period of one month, the period of leave has not been counted, i.e. it was marked that the membership continued throughout this period of leave.

⁵ Alternatively, a binary variable of affiliation was also incorporated for preliminary testing and comparing, whether this modification would better the overall explanatory power of the models. The candidates who were the members of parties the lists they were candidate were affiliated (marked as "1"), whereas the candidates who had not joined a party but ran for elections in party lists were counted as unaffiliated (marked as "0"). However, this modification was not included to the actual analysis as it did not better the models for vote- and seat-gaining models.

marginal, and they were not directly comparable to candidates running in the lists of parties. Other research decisions made in terms of altering or converting variables have already been described above.

3. Analysis

2019 elections saw both the highest number of elected female representatives as well as the highest percentage of female candidates in the almost-30-year re-independence period. Since the 1992 elections, women have constituted on average about 22% of the pool of candidates, staying between 14 to 27 percent – and the share of elected female representatives has stayed below 20% with an exception of 2007 elections when peaking up to 23.8% (Allik 2015, 434). Consistent with Allik's analysis where she highlighted the number of female candidates as well as representatives differs across elections, increasing in some elections whereas decreasing for others, the lower number and electoral success of female candidates for 2015 parliamentary elections as compared to 2019 elections is in line with the overall tendencies. What does stand out for 2015 elections is the high share of female candidates (Table 1) who have received a mandate through closed lists for which the success rate for women has generally been notably lower in the previous elections, staying around 20% on average. When looking at the results of 2015 and 2019 elections and comparing them to Allik's analysis for earlier elections, higher share of women has been consistently elected through closed lists as compared to open lists, with an exception of 2011 elections. Although there is little difference between 2015 and 2019 elections as can be seen from Table 1, it could indicate closed lists can benefit women – that is, only if women have been favoured by parties by placing them on high positions.

	2015			2019			
	Total	Female	Female %	Total	Female	Female %	
Elected	101	24	23.8	101	28	27.7	
Open	79	16	20.3	81	22	27.1	
Closed	22	8	36.4	20	6	30	
Candidates	861	231	26.8	1084	352	32.5	

Table 1. Female candidates and representatives by list type in 2015 and 2019 elections.

However, it can be presumed the incentives for favouring certain candidates differ across parties and thus the effect of gender could be different for each party. This will be zoned into in the third part of the analysis. The first two parts of the analysis aim to shed a light on the factors constituting candidate's vote share and probability of getting elected from district lists where their electoral success is up to voters' preferences.

3.1 Success in votes: the vote share model

The primary indicator of candidate's personal success is the votes they manage to gain in parliamentary elections. Whilst the vote-differences of candidates are quite high, with most of the candidates receiving well below 1000 votes and some of the popular candidates collecting notably more than that, median number of votes is used to illustrate the differences between the sexes (see for Table 2, pp 44). This overview of descriptive statistics on votes also helps to portray the distribution of votes across groups, which is harder to visualise when interpreting the effects of variables on the modified dependent variable for vote share in the following regression models.

The median for collected votes was 223 and 153 for 2015 and 2019 parliamentary elections, respectively. When looking at gender-based differences in Table 2 (pp 44), female candidates' median votes are notably lower than male candidates' vote median. However, gender alone is not enough to claim female candidates have been systematically disapproved by the electorate. When leaving aside other party-based or institutional factors, such as the overall popularity of the party, or the favouring or unfavouring effect of district magnitude on the competition for votes and seats, some of the most important predictors of candidates' success can be argued to be their personal characteristics, especially when it comes to forms of political experience. Whilst Allik has noted a consistent and statistically significant effect of incumbency on the success of candidates throughout the previous elections both in terms of vote share and probability of getting elected (2015), it is reasonable to continue zoning into the effect of gender on different "subgroups" of candidates when explaining the vote-differences. As can be seen from Table 2, taking account the effect of holding a political national level position at the time of elections, the differences indeed diminish or are even reversed. While in 2015 female incumbents' median vote was higher than male incumbent's median vote, there was little

difference between male and female candidate's median vote in 2019. Female nonincumbents' votes were similar to male non-incumbents' in 2015, although male nonincumbents' median vote was higher for 2019. When looking at the differences between first-time candidates, female newcomers do slightly better than male newcomers in 2015, although worse in 2019.

Notable difference between men's and women's vote shares occur when only gender is accounted. However, as Table 2 (pp 44) implies, some of the differences in vote shares of men and women should rather be attributed to candidates who have some level of previous legislative or electoral (i.e. candidacy) experience and it can be presumed the level of this experience (i.e. how many times has the candidate run for elections before or what is their previous political "status") is what accounts for the differences in the votes across genders. This tendency has both been observed by Allik for Estonian elections, as well as candidate-level analyses in other countries with similar electoral systems (e.g. Prihatini 2019). The effect of gender on subgroups is observed in more detail later in the analysis. It should also be noted that whilst there is little effect of gender on votes when the experience level of the candidates is equal, the women's collective vote-share differences compared to men can also be explained by the fact that female incumbents account for only about a fourth from the total pool of incumbent candidates for both 2015 and 2019 parliamentary elections. At the same time, whilst the pool of first-time candidates was also dominated by male candidates, female newcomers can mostly be found from the lists of smaller parties with little chances of getting elected - or new parties, whose electoral chances are equally minimal. For example, 2019 parliamentary elections saw the entrance of two new parties (Estonia 200 and Richness of Life) as well as two small and renewed parties with previous parliamentary experience but little chance of succeeding (Estonian Greens and Estonian Free Party) in the competition for seats. The lists of these parties composed high share of female candidates, most of whom had no or very little national political experience both on legislative and electoral level (i.e. experience in running for elections before), but the poor or moderate popularity of these parties might partly explain the notably lower overall median vote for female first-time candidates for 2019 elections. Still, although relevant for explaining the differences between vote shares of the candidates, non-incumbent and first-time candidates are most likely the weakest as they have had little publicity, experience and weaker network, which can be detrimental to their success potential – hence this bias is unlikely to be reflected on the actual chances of getting elected (Allik 2015, 438).

	2015	2019
Female	207	130
Male	232.5	175.5
Female incumbents	1698	1524
Male incumbents	1356.5	1573
Female non- incumbents	168	106.5
Male non-incumbents	180	141
Female newcomers	133	81
Male newcomers	127	94

Table 2. Median votes by gender and incumbency for 2015 and 2019 elections.

When moving on to analysing the effect of gender on vote share, regression analysis was used to test the effect of factors contributing to the vote-success of the candidates. The predicted vote share for female candidates is lower than predicted votes share of male candidates in both 2015 and 2019 parliamentary elections as can be seen from Table 3 (pp 45), although vote share difference is statistically significant only for 2019 elections (p < 0.05), which confirms there is a difference in vote gaining success between male and female candidates.

DV: logit transformation candidate's vote share	of 2015	2019
Coef.		
Intercept	-5.320***	-5.683***
Female	-0.107	-0.228*
Observations	861	1084
R-squared	0.000	0.004
Adjusted R-squared	-0.000	0.003
F Statistic	0.849 (df=1; 859)	4.591 (df=1; 1082)
Note	*p<0.05; **p<0.01; ***p<	<0.001

Table 3. The effect of being female on candidate's vote share for 2015 and 2019 parliamentary elections.

However, as mentioned above, there are multiple factors that contribute to the success of a candidate. Candidate's electoral success is affected by institutional, party as well as candidate's personal characteristics, which in turn can be mutually reinforcing. Whilst voters can favour candidates who have political experience and whose performance they can validate through voting, the same virtues might appeal to parties, who have to make strategic decisions in line with institutional limitations and perceived potential for electoral penalties they could face when failing to meet electorate's expectations. Experienced candidates have better position in terms of exposure to publicity, financial means, and networks, which can simultaneously encourage taking up candidacy as well as enhance the potential for success. Candidates' personal success can also be influenced by the popularity of the party – especially when it comes to getting elected – or district magnitude, which regulates the designated possibilities for gaining seats. Hence, the effect of gender on vote share is tested when candidate, party, and institutional level factors widely regarded as important predictors of electoral success are controlled. Following Mirjam Allik's analysis on 1992-2011 parliamentary elections, the effect of gender is tested also for 2015 and 2019 elections when candidate's age, party popularity, position on electoral lists, and recent political experience are controlled for model 1. This model is specified in Allik's analysis and is employed to allow comparisons of the effects with previous elections. Furthermore, the effect of gender is also tested with additional variables added to the model. Model 2 introduces a variable for cumulative political experience, which summarises the time candidate has spent as a member of Riigikogu, variable indicating the potential effect of party membership, and variable testing the effect of education on vote share. The results of regression models 1 and 2 are presented in Table 4. These models are also further specified using interaction terms when it was presumed – based on theory, observations from testing the effects when running different models, or wish to compare the results for different indicators of success – that effect of female could differ across subgroups.

DV: logit transformation of candidate's vote share	2015	2015	2019	2019
Coef.	model 1	model 2	model 1	model 2
Intercept	-6.576***	-6.509***	-5.945***	-6.144***
Female	-0.143	-0.140	-0.173*	-0.173*
District list position	-0.215***	-0.213***	-0.231***	-0.227***
National list position	0.006***	0.006***	0.002	0.002*
Incumbency	1.200***	0.807***	1.195***	0.930***
Age	0.051*	0.036	0.028	0.024
Age ²	-0.000*	-0.000*	-0.000	-0.000
Party votes in district	0.091***	0.078***	0.116***	0.105***
Legislative experience (years)		0.047**		0.004
Party membership experience (years)		0.015*		0.028***
Higher education		0.586***		0.453***
Observations	861	861	1084	1084
R-squared	0.398	0.435	0.522	0.550
Adjusted R-squared	0.393	0.428	0.519	0.546
F Statistic	80.68 (df=7; 853)	65.51(df=10; 850)	168 (df=7; 1076)	131.4 (df=10; 1073)

Note

Table 4. Explaining candidate's vote share for 2015 and 2019 parliamentary elections (models 1 and 2).

*p<0.05; **p<0.01; ***p<0.001

As the dependent variable for both vote share models is a logit transformation of vote share, the model and associations can primarily be interpreted through looking at the direction of the association. When accounting other factors in addition to gender, the results in Table 4 indicated a lower vote share for female candidates as compared to male candidates, other variables being controlled. The effect of being female on votes was significant only for 2019 elections. This could partly be attributed both to the pool of new candidates, from among whom women did worse, but also to popularity of Conservative Party, for which men did especially good.

As expected, recent political experience (incumbency) is a significant predictor of candidates' vote success for both models and years. Holding a position as a member of Riigikogu, as a minister in a government, or as a member of European Parliament at the time of elections is positively associated with vote share. These candidates are exposed to more publicity due to their positions, which can simultaneously bring voters' attention to them and express their recent experience in office, which is appealing both for the voters and the parties.

Continuing on political experience, incumbency is first and foremost operationalised as an indicator of candidate's recent experience in the political position. At the same time, the length of the political experience is also expected to affect candidate's chances for success - the longer time spent as a member of Riigikogu indicates candidate's seniority, which is expected to be attractive for voters and parties in their preferences. Similar to incumbency, legislative experience is also positively associated with vote share, but it is significant only for 2015 elections. Non-significant association for 2019 elections indicates marginal effect of cumulative experience on vote success. When 2015 elections still saw relatively stable pool of candidates mostly composed of the members of already "established" parties, many of whom also had some political experience, 2019 elections witnessed the success of candidates from formerly less popular (Conservative Party) or to some extent even new parties (primarily Estonia 200). Although recent political experience was still significant predictor of vote share even in changed political climate for 2019 elections, electorate's shift of support towards alternative candidates might explain for the smaller effect of overall legislative experience. Thus, cumulative political experience might predict candidates' success well when the political climate is stable and party system less fragmented, but it's effect can be more open to fluctuations as new and relatively successful actors enter political arena. Furthermore, incumbency remains a stronger predictor of vote share success as it accounts for the visibility at the time of elections. One can presume that when it comes to cumulative legislative experience, not all experience is seen equal among electorate - for example, as it also combines the experience of alternate members, whose length of term and expected publicity and name recognition could have been smaller, the temporary replacement in between the terms might not have caught voters' eyes. It also does not account for the time spent holding other high political positions (e.g. being a minister), which could have potential in affecting the success chances of a candidate on its own.

Furthermore, when looking at Table 2 (pp 44), there is also difference in median votes for male and female candidates who are first-time voters in 2019 elections. Thus, it makes sense to test the experience in terms of candidacy experience. Female non-incumbents tend to receive less votes than male non-incumbent candidates, but the results vary across elections, as also highlighted by Allik (2015). Non-incumbent category still composes candidates who were not incumbents at the time of elections, but who might have had legislative experience or exposure through previous candidacy experience in addition to first-time candidates without national-level political experience. By separating candidates based on their electoral experience (or more precisely – the lack of it), it is aimed to test whether gender has effect for being first-time candidates. However, the inclusion of interaction term to the model yielded no significant association for either of the elections (Table 5, model 2.1, pp 50), indicating being female and first-time candidate does not undermine the chances of success for candidate. When accounting the influence of gender to the newcomers' group, the differences between male and female newcomers differ only marginally. Rather, the votes gaps between political newcomers and candidates holding political position is what could be presumed to account for the overall difference of electoral vote-success between genders. Thus, when deciding to vote for an "unknown" candidate, voters do not supress female newcomer candidates' chances. Although literature refers parties and voters might prefer male candidates more in similar circumstances as they resemble the usual pool of representatives (Fox ja Lawless 2005, 649), 2015 and 2019 elections did not show evidence of these preferences.

Continuing on experience, party membership experience is positively associated with vote share. The effect is significant for both 2015 and 2019 elections at least on p < 0.05

significance level. The difference in the effect of party membership length variable could be attributed to the levels of success of new and "renewed" parties for each election. Whilst 2015 parliamentary elections introduced two new parties to the parliament when Conservative and Free Party surpassed the threshold, 2019 elections did not see the success of new parties established prior the elections (Estonia 200 and Richness of Life) as well as the "renewed" Free Party and other smaller parties (e.g. Greens). The more time candidate has been a member of party, the more time they have likely had to establish their role among party selectorate and voters, resulting in higher vote share. At the same time, the effect could be mutually reinforcing. Presumably the intra-party competition for a place for candidacy is bigger for the established parties, which also might support the inclusion of more party-loyal members and especially those with political experience. This is further illustrated by the fact that the lists of smaller and new parties can be characterised by larger share of unaffiliated candidates as compared to their "established" competitors, who generally do not seem to include unaffiliated candidates in election lists. At the same time, once the effect of party membership status on votes was alternatively tested with a binary variable indicating affiliation with party (where the value "1" indicated a candidate was officially a member of a party), affiliation in itself remained statistically non-significant for both elections indicating membership status alone has no effect.

Having higher education is also positively associated and significant for both elections. Since the model, based on how it is specified, assumes the effect is same across all subgroups, interaction with gender variable was used see if there were any differences in the effect of education between groups. Whilst other interaction combinations of variables in the model with gender yielded no statistically significant results, it was significant for gender-education interaction term for 2019 elections, indicating an effect of being female differs across education levels (Table 5, model 2.2, pp 50). The coefficient of "female" indicates the effect of being female when the candidate does not have higher education (education is "0"). This is negatively associated with vote share for both elections, although significant still only for 2019 elections. However, the coefficient for female candidates with higher education is close to zero. Thus, being woman has no effect when candidates have higher education. At the same time, the effect of being female had

negative association when candidates did not have higher education - female candidates with lower education received less votes.

DV: logit transformation of candidate's vote share	2015	2015	2019	2019
Coef.	(model 2.1)	(model 2.2)	(model 2.1)	(model 2.2)
Intercept	-6.035***	-6.483***	-5.878***	-6.055***
Female	-0.015	-0.224	-0.016	-0.486**
District list position	-0.209***	-0.213***	-0.225***	-0.226***
National list position	0.007***	0.006	0.002*	-0.002
Incumbency	0.727***	0.804***	0.879***	0.934***
Age	0.028	0.035*	0.022	0.023
Age ²	-0.000	-0.000*	-0.000	-0.000
Party votes in district	0.076***	0.077***	0.103***	0.104***
Legislative experience (years)	0.040*	0.047**	0.001	0.005
Party membership experience (years)	0.006	0.015*	0.021***	0.028***
Higher education	0.546***	0.561***	0.435***	0.341***
Higher education*female		0.104		0.403*
Newcomer	-0.350***		-0.260**	
Newcomer*female	-0.134		-0.192	
Observations	861	861	1084	1084
R-squared	0.446	0.435	0.557	0.552
Adjusted R-squared	0.438	0.428	0.552	0.548
F Statistic	56.92 (df=12; 848)	59.52 (df=11; 849)	112.2 (df=12; 1071)	120.4 (df=11 1072)
Note		*p<0.05; **p<0.	01; ***p<0.001	

Table 5. Explaining vote share for 2015 and 2019 parliamentary elections (model 2.1 and model 2.2).

When it comes to other variables, candidate's position in district list is an important indicator of vote-success. Lower position in district list can be associated with lower vote share and the variable is significant contributor to the model for both elections. Whilst it

was expected that preferred candidates were placed higher on both national and district lists, the results indicate some discrepancies - lower positions in national lists are positively associated with vote share, other variables held constant. However, since voters are presented district lists when casting their vote and hence national placement is unlikely to directly affect the voting decision, the effect of national list should rather be interpreted as a potential indicator that candidates are positioned differently in two types of lists. This will be further looked into in the third part of the analysis. Another significant factor for both elections is party's vote share in district. The vote in preferential voting is pooled which contributes to also deciding party's success (Karvonen 2011, 120) and thus the positive association of popularity of the party with candidates vote share was expected. When it comes to the effect of age on vote share, the negative value for the variable of age in the power of two apparent for both elections indicates reversed U-shape association with vote share - increase in age is associated with increase in votes until certain age, but the vote share starts to drop later. The effect of age is easier to illustrate on figure. Since age was significant only for 2015 elections, the effect of this variable is presented for this election. Figure 2 illustrates the vote share starts to decrease at around the age of 45.

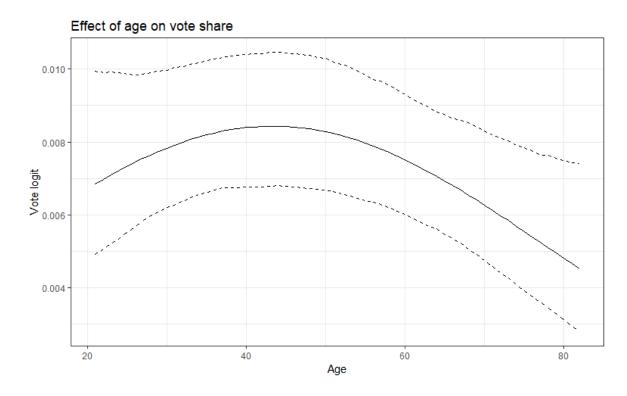


Figure 2. Predicted vote share by candidates' age for 2015 election.

When comparing the effect of being woman on vote share with Allik's analysis for previous elections, association with gender was generally significant and negative for prior elections. However, the coefficient differed across elections, which allows to presume there is no systematic gender gap for female candidates, but rather the results are dependent overall on the political climate, including the popularity of certain parties, and the pool of female (incumbent) candidates. Thus, it is not surprising that the effect of gender was negative but significant only for 2019 elections. Similarly, Allik has reported the significant and positive association of incumbency with vote share throughout all previous elections. This tendency continued for the latest parliamentary elections, as seen from Table 4, and can even be observed for other indicators of experience, such as in terms of cumulative legislative and party membership experience that were added. The effect of age, party popularity and ranking on district lists yielded similar results for all of the elections, however the coefficient for age has been larger and significant for previous elections, whereas the effect remained quite subtle for the latest elections. This could be an indication that either the pool of incumbents or candidates has become "younger" or the perceptions of the qualities of potential representatives have changed and younger candidates have not been undermined. However, these conclusions can not be made based on looking at the differences alone.

Whilst important notices have been mapped for explaining the differences between gender vote share and "framing" the understanding of gender vote gap and perception of inequality, these biases do not necessarily help to explain the differences in numbers of male and female representatives – as also shown by Allik (2015) for earlier elections, the biases tend to be on the level of candidates who have little chance of getting elected in the first place. Whilst vote share as a dependent variable is more sensitive to fluctuations and might "overestimate" the perception of candidate's success in terms of how it reflects in the pool of representatives, the effect of the same variables are tested on the probability of getting elected, which should shed more light on the potential biases on the level of representatives.

3.2Getting elected: the seat-gaining model

For testing whether gender has an effect on electoral outcomes when it comes to getting elected, logistic regression models were ran with the same variables. Dependent variable

here is electoral success in the form of "getting elected", where the value "1" stands for receiving personal or district mandate. Allik (2015) also added district magnitude and the interaction of district magnitude and gender to the model to test whether election probability differs for women in larger and smaller districts. Model 3 represents a model specified by Mirjam Allik, whereas new variables of experiences and education have been added to model 4. Similar to vote share models, the effects of different variables are tested for 2015 and 2019 elections separately. The results are presented in Table 6.

	(Outcome: get	ting elec	ted from oper	n list (0 =	= not elected;	1=electe	ed)	
		2015					20	19	
		model	3	model	4	model	3	model	4
		Coef.	Odds	Coef.	Odds	Coef.	Odds	Coef.	Odd
			ratio		ratio		ratio		ratio
Intercept		0.664		1.043		0.658		0.700	
Female		1.357	3.885	1.330	4.011	-0.500	0.606	-0.464	0.62
Female*Distri magnitude	ict	-0.248	0.780	-0.257	0.774	0.056	1.059	0.050	1.05
District magnitude		-0.033	0.967	-0.044	0.956	-0.098	0.906	-0.095	0.90
District position	list	-0.987***	0.373	-0.967***	0.374	-0.958***	0.384	-0.960***	0.38
National position	list	0.005	1.006	0.004	1.005	0.001	1.002	0.001	1.00
Incumbency		1.466***	4.335	1.634***	5.056	1.208***	3.349	0.989*	2.68
Age		-0.064	0.937	-0.086	0.934	-0.054	0.947	-0.070	0.93
Age ²		0.000	1.000	0.000	1.001	0.000	1.000	0.000	1.00
Party votes district	in	0.218***	1.244	0.222***	1.248	0.273***	1.314	0.270***	1.31

Table 6. Getting elected from open list for 2015 and 2019 parliamentary elections (model 3 and model 4).

Legislative						
experience		0.023	1.028		0.014	1.014
(years)						
Party						
membership		-0.040	0.962		0.010	1.010
experience		0.040	0.902		0.010	1.010
(years)						
Higher		0.400	1 (22		0.500	1 664
education		0.490	1.633		0.509	1.664
Number of						
observations	861	861		1084	1084	
R-squared (Cox	0.265	0.268		0.248	0.249	
Snell)						
R-squared	0.579	0.584		0.603	0.605	
(Nagelkerke)	5.572	0.001		0.000	0.005	
Nota		*** <	0.05. ***	$<0.01 \cdot *** n < 0.00$)1	;

Note

*p<0.05; **p<0.01; ***p<0.001

With an interaction effect in the models, the interpretation of coefficients are slightly different. As can be seen from Table 6, the coefficient for the gender variable indicates statistically non-significant effect of gender on the chances of getting elected in both 2015 and 2019 parliamentary elections. This is not surprising, given the effect of gender on the probability of getting elected was previously noted only for 2003 elections (Allik 2015, 440). Furthermore, the association for the interaction variable for gender and district magnitude is non-significant. Higher district magnitude does not increase the chances of getting elected for female candidates, although women have slightly higher probability of success in larger districts. Overall, female candidates do not do better than men in larger districts compared to smaller districts when it comes to getting elected. As seat-gaining success is not too open to fluctuations, the effect of district magnitude on female candidates' electoral success was additionally tested on candidates' vote share (model 2.3, Appendix 1, pp 76) to see whether the effect would be apparent for votes. The interaction with gender again yielded non-significant results, indicating the differences are marginal. Whilst the coefficient indicates women might do slightly better in bigger

districts, there is no real overall effect that could be noted on the outcome. Larger districts thus do not have a positive mediating effect on female candidate's electoral success both in the terms of benefiting their vote share and chances of getting elected. These results apply only to analysed elections, as the effect has been apparent for some previous elections (Allik 2015) and is dependent on the political and social developments of political sphere prior and during specific elections (e.g. 2003 and 2007). However, the positive effect of district magnitude still remains rather an exception than rule for Estonian elections when adding the results to Allik's analysis.

Similar to vote share models, the effects of incumbency, party popularity and position in district list are significant factors also for this model. The effect of incumbency was especially high for 2015 elections, when the odds of getting elected for incumbents were five times higher than for non-incumbents, other variables held constant. The effect was somewhat smaller, but still significant for 2019 elections. Although all the elected parties in 2019 have parliamentary experience, the results can likely be explained by the increase in Conservative Party's popularity, which introduced several new members to parliament. Party list's popularity in a district expectedly remains to be a significant factor explaining the electoral success. Higher position on district list is associated with better chances of getting elected. However, when looking at the lists, stronger candidates (i.e. candidates who also have political position or experience) are generally placed at the top, which might partly explain the effect. The effects of these variables are consistent with the analysis of previous elections provided by Allik.

When it comes to the added variables, legislative experience, party membership experience, and higher education did not show significant association with getting elected for either of the elections. Longer parliamentary and party experience thus had no effect on seat-gaining prospects – recent political experience is preferred over party "loyalty" and overall representative-experience. Similarly, education was non-significant for both elections. Although female candidates with lower education did worse compared to less educated male candidates, and the effect of gender evened out for highly educated candidates in terms of vote gain, the interaction was tested also for seat-gaining model. As the effect remained non-significant here, no differences in groups based on the effect of being female were observed when it came to the probability of getting elected.

However, whilst the vote share and receiving personal or district mandate indicate the effects of different variables accounting for the success of candidates in open lists, they reflect the preferences of voters casting their preference votes – parties have little chance to alter the electoral outcome at the time of elections (although they have exerted control over the pool of candidates). At the same time, these results do not have to align with party preferences. Thus, it should also be zoned into which factors are preferred by parties when composing party lists. These factors, in turn, can also be used to observe the success-potential of candidates.

3.3 Party lists: the national list placement model

Estonian electoral rules have introduced two lists, leaving both voters and parties with the opportunities to shape electoral outcome. Whilst most of the candidates are elected from open lists, about fifth of the seats are still allocated through compensatory mandates and the number of women elected through closed lists has generally stayed stable with few exceptions (e.g. 2011 elections) as can be seen from Table 7.

	1992	1995	1999	2003	2007	2011	2015	2019
Total elected	60	52	46	27	26	19	22	20
from closed list	00	52	40	21	20	17		20
Women elected	10	9	9	8	7	2	8	6
from closed list	10	,	,	0	1	2	0	0

Table 7. Number of mandates allocated through compensatory mandates by gender.

Hence, it makes sense also to analyse the composition of national lists and see whether the same factors are favoured when composing party lists. Since the decisions of the placement of candidates in national lists are up to party elite and selectorate, analysing the placement of candidates on national list allows to give insight of the factors relevant for parties themselves. These factors could also mirror the values and stances of parties, and furthermore, give insight to which values parties may favour already during their candidate selection process. Analysing factors relevant for composing lists also allows to assess parties' stance towards women – positions reflect the underlying strategies and values of parties better than the number of women receiving a compensatory mandate, as the potential number of compensatory mandates allocated to parties still depends on party's popularity (Allik 2015, 435).

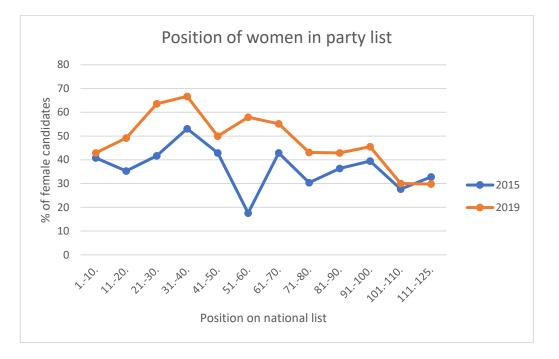


Figure 2. The share of female candidates on national list positions.

Figure 2 illustrates the share female candidates constitute from total candidates on national list positions. The share is calculated for 10-position clusters, which allows to analyse the placement of candidates based on their gender separately throughout the lists. As the most successful parties have generally gained around 30 seats, candidates placed on positions below that have hardly any chance to get elected through closed lists. The general presumption is that the higher up candidates are placed on party lists, the better chances for getting elected they have.

As can be seen from Figure 2, female candidates are not distributed equally across the national list. Women are overrepresented in the first half of the list especially for 2019 elections, and the highest share of women is concentrated on positions between 31-40 for both elections. The share of female candidates starts to drop for the second half of national lists – positions below 70 already see fewer female candidates. The middle of the list is heavily populated by female candidates for 2019 elections and the share of women starts to drop from the place 71 and lower. Generally, the same tendency can also be noted for 2015 elections, where the first half of the list is populated by female candidates and a drop of share is noted from places below 71.

Although the share of female candidates in the first 30 positions has increased for 2019 elections, where almost half or more of the top-30-positions were held by women, the situation for the first 10 has remained similar to that of 2015 elections. Still, 4 women were at the top of the party lists in 2019, as compared to 1 woman in 2015 elections – although only one of them was a top candidate of a party with "secured" electoral success (i.e. the party which has been elected to the parliament in several consecutive elections and thus was likely to get elected again).

The number of female candidates peaks for positions between 31-40 for both elections. By considering the support for most popular parties has yielded them usually 20-30 seats over the last elections, the most populated positions where women are concentrated are those below the places with perceived potential for receiving a seat. Still, the first half of the list for 2019 elections is dominated by female candidates, with the share dropping closer the end of the list. Female candidates have been positioned higher in the first third of the list compared to 2015 elections, which aligns with the overall tendency of women being positioned on better places over the elections that Allik (2015) also noted for the previous elections.

However, considering only gender when looking at the placement of candidates in party list is not satisfactory when trying to understand the logic of list compositions and any possible party preferences. Thus, it is also tested whether gender has effect on list placement when other variables associated with candidate's characteristics and electoral potential have been taken account. Furthermore, as the value for "electable positions" is presumed to differ across the parties, the motives behind placement are evaluated separately for each party. More so, different parties are expected to have different incentives when it comes to supporting female candidates (e.g. parties on the ideological left are believed to be more supportive of women (Caul 1999, 82), smaller and newer parties could be argued to have more incentives to include more women due to smaller intra-party competition or little electoral risk), different patterns are presumed to occur for different parties when looking at the logic of candidate-positioning. As voters have hardly any say over the distribution of seats, party lists are expected to be more beneficial for female candidates – that is, when parties place women on higher positions. Thus, female candidates are expected to be placed higher, other factors controlled, as placing female candidates at the front of the lists proposes little risk for electoral penalization for parties – *vice versa*, it can show them in better light.

Using multiple regression analysis with a continuous dependent variable of "national list positions", the effect of gender is tested when the variables of incumbency, cumulative legislative experience, age, education, and party experience are controlled. Whilst the aim is to analyse factors affecting the list placement from candidate-specific terms, individual candidate-level variables were included to models.

DV: national list position 2015 2019 Coef. 92.521*** 108.370*** Intercept Female -4.007-4.884* -14.957** -32.312*** Incumbency Age -1.585* -1.704** 0.017* 0.018*** Age² -1.455** Legislative experience (years) -0.553 Party membership experience 0.193 0.165 (years) 2.560 -7.314** Higher education Observations 861 1084 **R**-squared 0.056 0.110

Table 8. The effect of gender on list positions for national lists for 2015 and 2019 elections (parties combined, model 3).

*p<0.05; **p<0.01; ***p<0.001

Adjusted R-squared

F Statistic

Note

The interpretation of coefficients for national list placement models refer to a situation where negative coefficients are substantively better – the decrease in national list position refers to higher position on national list. Negative coefficient indicates the increase in binary dummy gender variable (i.e. being female) is associated with higher position on

0.048

7.187 (df=7; 853)

0.104

19.03 (df=7; 1076)

the national list. As can be seen from Table 8 (pp 59), the effect of being female was significant and negative for list positioning for 2019 elections. Female candidates were associated with a list placement of 4.884 places higher than male candidates, other variables held constant. Although the association was negative for 2015 elections, it was not statistically significant. When it comes to other variables, recent political experience (incumbency) was significant for both 2015 and 2019 elections. For both elections, incumbent candidates were associated with higher positions on national lists. Although previous chapters have showed incumbency to be associated with higher vote share as well as better chances of getting elected from open lists, thus being less dependent on their position on national list than non-incumbent candidates, parties generally seem to place incumbents higher and thus secure their chances of getting elected. This might also indicate parties prefer a certain pool of already established candidates to enter the parliamentary arena and present the party. Similarly, cumulative legislative experience time spent as a member of Riigikogu - is also negatively associated with list positions, although it is significant only for 2015 elections. The underlying logic is expected to be the same as for placing incumbents – increase in time spent as a member of parliament results in being placed on better position on national list. Age yielded negative and statistically significant association with list positioning for both elections - older candidates were placed higher on national lists. This could partly be explained by the experience factor, where older candidates have had more chance to gain political experience (e.g. the average age for incumbents is about 7 years older than for first-time candidates). Interestingly, party membership experience has positive and non-significant effect for both elections. Thus, membership status and length does not give benefits when it comes to being placed higher on national lists – parties do not value long-time members higher. When it comes to higher education, the results were mixed across elections. Candidates with higher education were associated with about 7 places higher positions in national lists for 2019 elections, other variables held constant. Although significant for 2019 elections, it was positive but non-significant for 2015 elections.

Incumbency – and in this case also age – remain important when explaining the factors affecting the decisions made about the placement of candidate throughout elections. Other factors, especially the effect of being female differed, for elections. However, the explanatory power of the models is quite poor, the variables explaining little of the

variance for the parties combined. This makes sense, given the strategies for list placements are expected to differ for each party. Thus, the model with same variables were ran for parties separately. The parties who proposed full lists of candidates for both elections were chosen. The models were applied for analysing Conservative Party (CP), Reform Party (REF), Pro Partia, Free Party (Free), Centre Party (Centre), and Social Democrats (SD). Following analysis presents the results of the models for each party for both of the elections separately.

DV: national list position	СР	REF	Pro Partia	Free	Centre	SD
Coef.						
Intercept	97.387***	97.948*	203.037***	80.573	104.871*	83.068
Female	14.492*	-9.534	-7.082	-10.543	-6.667	-17.064*
Incumbency		-27.749***	-32.221***	11.751	-21.203	0.698
Age	-1.531	0.800	-6.168***	-0.784	-0.995	-0.593
Age ²	0.019	0.014	0.066***	0.009	0.012	0.006
Legislative experience (years)	32.497*	-2.428*	-1.283	-4.777	-0.830	-2.593*
Party membership experience (years)	-0.155	-0.158	-0.362	5.132	-1.223*	-0.014
Higher education	-24.334***	-16.231	10.385	-2.449	-10.607	3.651
Observations	125	124	125	125	125	125
R-squared	0.15	0.336	0.315	0.087	0.191	0.093
Adjusted R- squared	0.106	0.296	0.274	0.032	0.143	0.039
F Statistic	3.471(df=6 ;118)	8.42(df=7; 116)	7.695(df=7; 117)	1.597(df=7;117)	3.968(df=7 ;117)	1.733(df =7; 117)
NI				0.01, $***$, 0.001		

Table 9. Factors explaining candidates' national lists positions for 2015 elections (parties separated, model 3).

Note

*p<0.05; **p<0.01; ***p<0.001

As can be seen from Tables 9 (pp 61) and 10 (pp 65), Conservative Party was the only from the analysed parties where the effect of female coefficient was large and positive for national ranking of candidates for 2015 elections - this means female candidates were placed on lower positions, other variables held constant. Whilst Conservative Party had no incumbents among their lists for 2015 elections, but the history of the party saw the inclusion of some of the candidates with legislative experience, the "experienced" candidates were also placed on lower positions for national lists. Higher education is associated with higher position on the party lists. Other variables yielded little effects on the results for 2015 elections. When it comes to 2019 elections, the effect of female is still positive, but the coefficient notably smaller and non-significant, indicating there is a tendency to place women lower on national list, but the effect is not so apparent compared to 2015. Incumbency was negatively associated and significant, indicating incumbent candidates were associated with notably higher positions on national list. However, legislative experience still yielded positive and significant association, indicating the more cumulative parliamentary experience, the lower position candidate held. Education continued to be negatively and significantly associated with national position - those with higher education were placed higher on national list.

For Reform Party, the effect of being female was negatively associated with position but non-significant. However, political experience, both in the forms of recent (incumbency) and cumulative (legislative) experience were significant predictors for national list position for both elections. Incumbency and legislative experience were negatively associated, indicating experienced candidates were placed higher on party lists, other variables held constant.

The results were similar for Pro Partia, although the best predictor of list placement was incumbency, yielding negative and significant effect for both elections – incumbent candidates were associated with notably higher positions on list. The tendency was similar but non-significant for cumulative legislative experience. At the same time, candidate's age was a significant contributor of the model for 2015 elections, where an increase of a year in age was associated with 6.168 places higher position on national list, other variables held constant, but the effect was smaller for the next elections. Being female was negatively associated with list placement but non-significant.

When it comes to Free Party, being female was associated with higher positions on national lists for both elections. Still, the percentage of female representatives elected to Riigikogu in 2015 from Free Party was high as female candidates were placed in the first positions. Hereby, the operationalisation of dependent variable does not allow to differentiate the effect of female for "very high" position and hence somewhat underestimates the effect of female for list placement for "electable" positions. Apart from this, age and education were significant in explaining the national list positions. Having higher education was associated with higher position on party lists for 2019 elections. Similarly, an increase in age was associated with higher position on national list.

For Centre Party, gender coefficient was negative and non-significant. Centre Party is known to apply zip-lock method for the first 12 positions on their national list already for several consecutive elections. However, when looking at the first 12 positions, almost all candidates were incumbents at the time of elections or have long parliamentary experience in Riigikogu in addition to party experience. Most of these candidates are strong candidates who stand good chances of getting elected regardless their position on national list. Thus, whilst the top of Centre Party's list is gender-balanced, it seems it still aims to secure the seats primarily for established candidates (as opposed to trying to introduce new candidates and especially women). Incumbency and legislative experience were significant contributors to the model for 2019 elections, where candidates with experience were placed on higher positions. At the same time, for 2015 elections only party membership was negatively associated with national list placement and significant contributor to the model. An additional year of being a member of a party was associated with 1.223 places higher position on national list. Party membership experience still yielded negative association for 2019 elections, but the effect was non-significant. Incumbency and parliamentary experience have been more important indicators for party in their decisions for ranking the candidates in light of their position in the government in recent years.

With 46 female candidates on their lists, Social Democratic Party had by far the most women-populated list in 2015 elections. The number of female candidates stayed almost same for 2019 elections, although the Greens and Estonia 200 surpassed Social Democratic Party's "score" for female candidates in their lists. Social Democratic Party

was also the only party where the effect of being female had large and negatively association and was significant for both elections. Female candidates were associated with 14-17 places higher positions on national lists for 2015 and 2019 elections. Legislative experience is also significant and negatively associated for 2015 elections, indicating a year of parliamentary experience yielded almost three places higher position on national list. Party membership experience does not stand out as an important factor in placing candidates for national positions. Other variables did not show significant effects on list positioning.

DV: national list position Coef.	СР	Reform	Pro Partia	Free	Centre	SD
Intercept	112.361*	89.639**	114.919*	172.697** *	68.674	82.292*
Female	1.483	-6.446	-10.554	-9.777	-4.238	-14.520*
Incumbency	-105.639***	-33.563***	-46.053***	-34.310	-30.606***	-14.361
Age	-1.214	-0.146	-1.554	-3.944*	-0.159	-0.949
Age ²	0.010	0.001	0.016	0.039**	0.007	0.015
Legislative experience (years)	15.628*	-2.404*	-1.754	-1.764	-2.374**	1.914
Party membership experience (years)	-0.533	-0.087	-0.028	-0.945	-0.645	-0.578
Higher education	-19.109**	-9.007	-8.853	-19.672**	1.176	-2.110
Observations	125	125	125	125	125	125
R-squared	0.236	0.368	0.347	0.200	0.413	0.101
Adjusted R- squared	0.190	0.330	0.308	0.152	0.378	0.047
F Statistic	5.17(df=7;11 7)	9.754(df=7 ;117)	8.893(df=7 ;117)	4.193(df= 7;117)	11.77(df=7; 117)	1.888(df =7; 117)

Table 10. Factors explaining candidates' position on national list for 2019 elections (model 3).

*p<0.05; **p<0.01; ***p<0.001

Note

Thus, whilst it can be observed that overall, parties place female candidates slightly higher than male candidates and the effect was larger and significant for 2019 elections, it can be attributed to the emergence of new or "renewed" (i.e. parties that have undergone structural and membership changes between election periods) parties, many of which are highly populated by women (e.g. Greens, Estonia 200, Free Party). Women are ranked notably better in these parties, but most of the candidates, regardless gender, have little political experience and thus stand less chance of getting elected from open lists as well as their position on national lists do not increase their chances of getting elected when the party is not popular and does not exceed the quota. Furthermore, the more "established" Social Democratic Party still seems to follow other strategies for securing the success of some candidates and most of the candidates placed on high positions are still mostly politically experienced and well-known candidates. Whilst women have overall held less political positions, it does not necessarily help to increase the pool of female representatives, but still at least secures legislative position for some female candidates. When it comes to Reform and Centre Party, there are less women in their pool of female candidates, but they are also not too far behind when it comes to the overall number of female candidates in the list. Although Centre Party uses zip-lock method for the first 12 positions in their lists, this method does not seem to be aimed to introduce new candidates to parliamentary arena – the top candidates still possess other qualities regarded as significant when explaining their electoral success in previous chapters.

Incumbency and political experiences deemed more important for already established parties. However, when it comes to Conservative Party and Pro Partia, there are notably less female candidates on their lists, especially what concerns Pro Partia (about a sixth of the candidates are women for both elections). Conservative Party placed female candidates on lower positions on national lists for both elections, but the effect of female was significant large for 2015 elections, when the poor position of female candidates prevented any of them from entering the legislative arena. The effect was non-significant and coefficient notably smaller for 2019, which – in combination with the good results in elections - also gave Kert Kingo a chance to receive compensatory mandate in Conservative Party's list. Similarly, Pro Partia has few women on electable positions on their party lists. Although women are placed on higher positions throughout the lists, they are not placed in top-10-positons, making their entrance harder. Pro Partia has also very low percentage of female incumbent and politically experienced candidates, which partly explains the poor placement of women in Pro Partia, where experience yielded as important in explaining the positions of candidates. These parties are observed to have less female candidates on less favourable positions on their party lists, which might be a reflection of underlying ideological stances, but also mirror the poor success women in these parties have had in getting elected.

Incumbency and overall legislative experience were important in explaining the positioning of the candidates, with experienced candidates mostly placed higher on national lists. Education also yielded significant results for some cases. However, party membership status was mostly a poor predictor of list positioning. It yielded significant effect for Centre Party in 2015 elections, which might indicate that party experience could be important factor for established parties with high intra-party competition when in opposition, but as the analysis has shown, the factors explaining success of the candidates tend to differ for each election, making it hard to conclude if there are any outstanding tendencies. Overall, based on the "combined" party model as well as looking at the results for parties separately, it seems it is incumbents, rather than women *per se* who are preferred in list-placement strategies. Even though incumbents stand a good chance of getting elected, the results indicate that parties might be led by the strategies for securing the chances of incumbents – hence, parties do not tend to take risks.

Conclusion

The literature on the representation of women – or more specifically – on the factors affecting the descriptive representation of women has been in academic interest for the last decades, when the effect of institutions and societal-cultural factors have been studied in efforts to explain the gender-specific differences among the pool of representatives. Whilst the discrepancies in the proportion of male and female representatives has called upon a concern for the potential inequalities with regards to the unequal distribution of (political) resources, the academic attention is reasoned. If, indeed, a social group as large as women has been consistently undermined in their efforts to be heard, it could have consequences for the quality of policies, sense of legitimacy, and societal norms. Thus, it is important to determine why and what accounts for the differences between men and women in society, and in the case of given thesis, more specifically in political sphere.

The studies "tackling" factors contributing to electoral success of female candidates have tested the effects of institutional, cultural, and sociological factors for women's chances of getting elected (e.g. Prihatini 2019) or being placed on electable positions (e.g. Chiru & Popescu 2017). However, whilst the differences between men's and women's success in terms of their descriptive representation have been acknowledged, the factors contributing to these differences are not straightforwardly connected to the effect of gender in itself – sometimes, the biases are alleviated when the effect of gender is tested in interaction with other characteristics of a candidate.

The availability of candidate-specific data, the stability of electoral system, and the "peculiarities" of electoral rules in terms of ballot system has made Estonia an interesting case for study. Furthermore, the analytical framework provided by Mirjam Allik for previous elections has provided an opportunity to replicate the analysis also for 2015 and 2019 elections and thus add onto the body of information, eventually allowing to assess the effects of success-contributing factors across different elections and examine the subtle increase in the number of female representatives. Moreover, this availability of candidate-level data also allows to test additional variables that could contribute to the understanding of female candidates' success, proving a fruitful case for further research.

The differences between the genders in the pool of representatives can thus be studied from candidate-level perspective.

Based on theory, it was hypothesised that women gain less votes, are less likely to get elected than men, but are overall positioned higher on party lists. Indeed, the analysis results yielded the effect of being female was negatively associated with vote share and probability of getting elected (for 2019 elections), but the effect was statistically significant only for the vote share of women for 2019 elections. However, the differences were alleviated when the model was specified with interaction terms, indicating women were not (significantly) undermined within the subgroups of candidates with similar characteristics – for example, first-time or incumbent female candidates did not do notably worse. The difference only occurred for education for vote share model, indicating female candidates with lower education received less votes, but the effect diminished for highly educated candidates. The vote share in 2015 and the electoral probabilities for both elections were non-significant, indicating the difference for women was marginal.

When it comes to list positions, the model encompassing six parties who presented full lists for both elections indicated women were placed on higher positions in national lists, especially for 2019 elections. This election also saw an introduction to several new parties with the lists composing numerous women, which can explain the results. By zoning in on the placement of women, female candidates are indeed concentrated on the first half on the lists, however, less women than men are positioned on the "crucial" top 10 positions for both elections. In fact, the share of women starts to truly increase for the positions below 20, where women, in reality, stand little chance of receiving compensatory mandate. Thus, the generally higher position does not necessarily account for a higher chance of receiving a mandate. However, this effect can differ across parties. The effect of gender on list positioning – expectedly – stood out for two parties: Conservative Party and Social Democrats. When all other parties placed female candidates higher on party lists, for Conservative Party, women were associated with 14 places lower positions in 2015 elections. Although the coefficient for 2019 refers women were still placed on lower positions, the differences are not so outstanding. The effect of being female was the opposite for Social Democrats. Women were associated with 14 to 17 places higher positions on national lists. For other parties, being women was also associated with about 6-7 places higher positions on lists. However, the chance of getting elected from closed list is still up to the popularity of the party in elections. Women placed lower might still receive compensatory mandate when the party is popular

Whilst it can be argued that higher positions on party lists can be considered inherently beneficial for women's electoral potential, the placement of women on viable positions could be considered a better indicator for testing the potential for party bias. This specification provides possibilities for future research. It would require defining the "viability" of a position. Whilst some researchers approach this by creating binary variables (e.g. Kunovich 2003) presuming the positions of high chances of getting elected (e.g. the first position on the list can be regarded as the best in terms of potential of securing candidate's election), or have relied on the results of previous elections when trying to determine how many seats party could receive in next elections (Allik 2015), the predictions based on previous elections might not reflect the current political situation well, and thus over- or underestimate the value for viable positions. However, trying to operationalize viable positions in terms of predicted success of parties in opinion polls could be considered as a new approach for operationalising "viable seats", although this also sets limitations (prediction error, respondents' bias etc). Proving true party bias was not the focal point of given thesis, but it would be a fruitful approach for future research for trying to better the understanding of the mechanisms altering electoral chances for female candidates in closed lists.

The addition of new variables to success-models was noted to give insights for testing the relevance of other factors and their potential for contributing to candidates electoral chances. Higher education deemed to be important factor explaining the success of candidates. Cumulative legislative experience was positively associated, but mostly non-significant contributor for both vote-share and seat-gaining models. It had a notable and significant positive effect on vote share only in 2015. Cumulative political experience might predict candidates' success well when the political climate is stable and party system less fragmented, but its effect can be more open to fluctuations as new and relatively successful actors enter political arena, as can be seen from 2019 elections. Similarly, party membership experience yielded important in terms of vote share for both elections, but this effect did not translate to probabilities of getting elected. Party experience did not attract voters – but perhaps even more interestingly, the cumulative

party experience yielded only modest effect on placing the members up higher on the list. Thus, it showed "experienced" members of party do not necessarily stand a better chance when it comes to receiving better positions. However, for future research, this variable can be "modified". As Estonian electoral rules allow non-affiliated candidates to run for elections under party's list, the effect of affiliation could be tested on positions. The preliminary testing of this modification done for given thesis noted this addition did not better the explanatory power for vote- and seat-gaining models, but interesting associations arose for list placement models – affiliated candidates were associated with about 10 places lower positions in national lists.

Continuing on possibilities of future research, the availability of candidate-level data has been highlighted as a virtue for studying Estonian elections. That being said, there are still several factors that could yield interesting results in explaining the variances between male and female candidates. For example, the occupation of candidates is listed in Electoral Committee data. This is candidate's self-reported data which requires through categorization, but it could be added to analyses to see, whether women having certain occupational background would do better. Simultaneously, the candidate-party financing aspects could yield interesting results with the data of candidate's personal expenditure and donations to party available. It could be tested whether candidate's donations to party could benefit a candidate in their efforts to secure higher position on party lists. However, with most of the candidates not donating and the extremely big variances in the size of donations among those who do would require further "work" with the variable - for example, the differences could simply be tackled by making the variable categorical. This would strip it from some of the "magnitude", but would help to generally indicate, whether higher donations could be associated with better positions as compared to lower ones. Even more so, the political experience of the candidate can be further specified. Similar cumulative values for holding a ministerial position could yield interesting results when explaining the success potential of a candidate. Simultaneously, the political experience at local government could be beneficial for candidate's success. Hence, the availability of candidate-level data as well as the reasonable number of observations would allow further testing on the topic.

Bibliography

- Alasuutari, Pertti. 2015. "The Discursive Side of New Institutionalism". *Cultural Sociology* 9(2): 162–84.
- Allik, Mirjam. 2015. "Who Stands in the Way of Women? Open vs. Closed Lists and Candidate Gender in Estonia". *East European Politics* 31(4): 429–51.
- Atkeson, Lonna Rae. 2003. "Not All Cues Are Created Equal: The Conditional Impact of Female Candidates on Political Engagement". *The Journal of Politics* 65(4): 1040–61.
- Atmor, Nir, Reuven Y. Hazan, Gideon Rahat. 2011. "Candidate selection". Personal representation: the neglegted dimension of electoral systems, toim Josep M. Colomer., 21–35.
- Ballington, Julie. 1998. "Women's Parliamentary Representation: The Effect of List PR". *Politikon* 25(2): 77–93.
- Banducci, Susan A., Jeffrey A. Karp, Michael Thrasher, Colin Rallings. 2008. "Ballot Photographs as Cues in Low-Information Elections". *Political Psychology* 29(6): 903– 17.
- Berggren, Niclas, Henrik Jordahl, Panu Poutvaara. 2010. "The looks of a winner: Beauty and electoral success". *Journal of Public Economics* 94(1): 8–15.
- Bhalotra, Sonia, Irma Clots-Figueras, Lakshmi Iyer. 2018. "Pathbreakers? Women's Electoral Success and Future Political Participation". *The Economic Journal* 128(613): 1844–78.
- Caul, Miki. 1999. "Women's Representation in Parliament: The Role of Political Parties". *Party Politics* 5(1): 79–98.
- Chiru, Mihail, Marina Popescu. 2017. "The Value of Legislative Versus Electoral Experience and Gender in Explaining Candidate List Placement in Closed-List PR". *Problems of Post-Communism* 64(2): 65–78.
- Chuki, Sonam, Mark Turner. 2017. "Women and politics in democratic transitions: the case of Bhutan". *Contemporary South Asia* 25(2): 136.
- Colomer, Josep M. 2011. "Introduction: personal and party representation". Personal representation: the neglected dimension of electoral systems (edited by Josep M. Colomer). UK: Colchester: ECPR Press, 1–19.
- Diermeier, Daniel. 2015. "Institutionalism and the Normative Study of Politics: From Rational Choice to Behavioralism". *The Good Society* 24(1): 15–29.
- Eder, Christina, Jessica Fortin-Rittberger, Corinna Kroeber. 2016. "The Higher the Fewer? Patterns of Female Representation Across Levels of Government in Germany". *Parliamentary Affairs* 69(2): 366–86.
- Esteve-Volart, Berta, Manuel Bagues. 2012. "Are women pawns in the political game? Evidence from elections to the Spanish Senate". *Journal of Public Economics* 96(3): 387–99.

- Fiva, Jon H., Helene Lie Røhr. 2018. "Climbing the ranks: incumbency effects in party-list systems". *European Economic Review* 101: 142–56.
- Fox, Richard L., Jennifer L. Lawless. 2005. "To Run or Not to Run for Office: Explaining Nascent Political Ambition". *American Journal of Political Science* 49(3): 642–59.

Fox, Richard L., Jennifer L. Lawless. 2011. "Gendered Perceptions and Political Candidacies: A Central Barrier to Women's Equality in Electoral Politics". *American Journal of Political Science* 55(1): 59–73.

- Fulton, Sarah A. 2012. "Running Backwards and in High Heels: The Gendered Quality Gap and Incumbent Electoral Success". *Political Research Quarterly* 65(2): 303–14.
- Górecki, Maciej A., Paula Kukołowicz. 2014. "Gender quotas, candidate background and the election of women: A paradox of gender quotas in open-list proportional representation systems". *Electoral Studies* 36: 65–80.

Hardy, Melissa A. 1993. Regression with Dummy Variables. SAGE.

Inglehart, Ronald, Pippa Norris. 2003. *Rising Tide: Gender Equality and Cultural Change Around the World*. Cambridge University Press.

- Inter-Parliamentary Union home page. https://www.ipu.org/
- Jäckle, Sebastian, Thomas Metz. 2017. "Beauty Contest Revisited: The Effects of Perceived Attractiveness, Competence, and Likability on the Electoral Success of German MPs". *Politics & Policy* 45(4): 495–534.
- Karvonen, Lauri. 2011. "Preferential vote in party list". *Personal representation: the neglegted dimension of electoral systems* (edited by Josep M. Colomer), 119–34.
- Katz, R.S. 1994. "Intraparty Preference Voting". *Electoral Laws and their Political Consequences* (edited by B. Grofman ja A. Lijphart)
- Kunovich, Sheri. 2003. "The Representation of Polish and Czech Women in National Politics: Predicting Electoral List Position". *Comparative Politics* 35(3): 273–91.
- Lutz, Georg. 2010. "First come, first served: the effect of ballot position on electoral succes in open ballot PR elections". *Representation* 46(2): 167–81.
- Marcinkiewicz, Kamil. 2014. "Electoral contexts that assist voter coordination: Ballot position effects in Poland". *Electoral Studies* 33: 322–34.
- Mavisakalyan, Astghik, Yashar Tarverdi. 2019. "Gender and climate change: Do female parliamentarians make difference?" *European Journal of Political Economy* 56: 151–64.
- Murray, Rainbow. 2008. "The Power of Sex and Incumbency: A Longitudinal Study of Electoral Performance in France". *Party Politics* 14(5): 539–54.
- Nkala, Sizo, Olusola Ogunnubi. 2015. "The impact of the electoral system on the level of women's legislative representation in post-apartheid South Africa". Africa Review 7(2): 134–48.

- Norris, P., R. Inglehart. 2001. "Cultural obstacles to equal representation". *Journal of democracy* 12(3): 126–40.
- Norris, Pippa. 2004. *Electoral Engineering. Voting Rules and Political Behaviour*. Cambridge: Cambridge University Press.
- Paxton, Pamela, Melanie M. Hughes, Matthew A. Painter. 2010. "Growth in women's political representation: A longitudinal exploration of democracy, electoral system and gender quotas". *European Journal of Political Research* 49(1): 25–52.
- Pitkin, Hanna F. 1967. The Concept of Representation. University of California Press.
- Prihatini, Ella S. 2019. "Women who win in Indonesia: The impact of age, experience, and list position". *Women's Studies International Forum* 72: 40–46.
- Put, Gert-Jan, Bart Maddens. 2015. "The Effect of Municipality Size and Local Office on the Electoral Success of Belgian/Flemish Election Candidates: A Multilevel Analysis". *Government and Opposition* 50(4): 607–28.
- Quamruzzaman, Amm, Matthew Lange. 2016. "Female political representation and child health: Evidence from a multilevel analysis". *Social Science & Medicine* 171: 48–57.
- Riera, Pedro. 2011. "Closed party list". *Personal representation: the neglected dimension of electoral systems*, UK: Colchester, 55–80.
- Rosar, U. T. Beckers, M. Klein. 2012. "Magic Mayors: Predicting Electoral Success from Candidates' Physical Attractiveness under the Conditions of a Presidential Electoral System". *German Politics* 21(4): 372–91.
- Rosen, Jennifer. 2017. "Gender Quotas for Women in National Politics: A Comparative Analysis across Development Thresholds | Elsevier Enhanced Reader". *Social Science Research* 66: 82–101.
- Rule, Wilma. 1994. "Parliaments of, by, and for the People: Except for Women?" *Electoral Systems in Comparative Perspective: Their Impact on Women and Minorities*, , 15–30.
- Sanbonmatsu, Kira. 2006. "Do Parties Know That "Women Win"? Party Leader Beliefs about Women's Electoral Chances". *Politics & Gender* 2(4): 431–50.
- Scarrow, Susan. 1994. "The 'paradox of enrollment': Assessing the costs and benefits of party memberships". *European Journal of Political Research* 25(1). https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1475-6765.1994.tb01200.x (17. mai 2019).
- Schmidt, Gregory D. 2009. "The election of women in list PR systems: Testing the conventional wisdom". *Electoral Studies* 28(2): 190–203.
- Schwindt-Bayer, Leslie A., Michael Malecki, ja Brian F. Crisp. 2010. "Candidate Gender and Electoral Success in Single Transferable Vote Systems". *British Journal of Political Science* 40(3): 696–709.
- Shair-Rosenfield, Sarah. 2012. "The alternative incumbency effect: Electing women legislators in Indonesia". *Electoral Studies* 31(3): 576–87.

- Shugart, Matthew S. 1994. "Minorities Represented and Unrepresented". *Electoral Systems in Comparative Perspective: Their Impact on Women and Minorities*, , 31–41.
- Zimmerman, Joseph F. 1994. "Equity in Representation for Women and Minorities". *Electoral Systems in Comparative Perspective: Their Impact on Women and Minorities*, toim Wilma Rule ja Joseph Francis Zimmerman. Greenwood Publishing Group.
- Tavits, Margit. 2010. "Effect of Local Ties On Electoral Success and Parliamentary Behaviour: The Case of Estonia". *Party Politics* 16(2): 215–35.
- Tsebelis, George. 1990. Nested Games: Rational Choice in Comparative Politics. University of California Press.
- Ulbig, Stacy G. 2007. "Gendering Municipal Government: Female Descriptive Representation and Feelings of Political Trust". *Social Science Quarterly* 88(5): 1106–23.
- Weyland, Kurt. 2002. "Limitations of Rational-Choice Institutionalism for the Study of Latin America". Studies in Comparative International Development. http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?vid=0&sid=0c9bfec7-5dff-4a1ba3f6-59efcce58c89%40sdc-v-sessmgr03 (11. aprill 2019).
- Wolbrecht, Christina, ja David E. Campbell. 2007. "Leading by Example: Female Members of Parliament as Political Role Models". American Journal of Political Science 51(4): 921–39.
- Women in National Parliaments web page. Accessible via http://archive.ipu.org/wmne/classif.htm

Data sources

E-Business Register. Accessible via https://ariregister.rik.ee/

Estonian Electoral Committee web page. Accessible via https://www.valimised.ee/et

European Parliament web page http://www.europarl.europa.eu/

Republic of Estonia Government. https://www.valitsus.ee

Riigikogu VII, VIII ja IX koosseis: Statistikat ja kommentaare (2004). Tallinn: Riigikogu Kantselei. Accessible via <u>https://www.riigikogu.ee/wpcms/wp-</u> <u>content/uploads/2014/11/VII_VIII_IXstatistikakogumik.pdf</u>

Riigikogu web page https://www.riigikogu.ee/

Riigikogu X koosseis. Statistikat ja ülevaateid (2007). Tallinn: Riigikogu Kantselei. Accessible via <u>https://www.riigikogu.ee/wpcms/wp-</u> <u>content/uploads/2014/11/X_statistikakogumik.pdf</u>

Riigikogu XI koosseis. Statistikat ja ülevaateid (2011). Tallinn: Riigikogu Kantselei. Accessible via <u>https://www.riigikogu.ee/wpcms/wp-</u> content/uploads/2014/11/XIstatistikakogumik.pdf *Riigikogu XII koosseis. Statistikat ja ülevaateid* (2015). Tallinn: Riigikogu Kantselei. Accessible via <u>https://www.riigikogu.ee/wpcms/wp-</u> <u>content/uploads/2014/11/Riigikogu-XII-koosseis.-Statistikat-ja-levaated.pdf</u>

APPENDIX 1

transformation of	2015	2019
candidate's vote share	(model 2.3)	(model 2.3)
Coef.		
Intercept	-5.127***	-5.139***
Female	-0.177	-0.459*
District list position	-0.139***	-0.137***
National list position	0.001	-0.002*
Incumbency	0.818***	0.943***
Age	0.041*	0.034*
Age ²	-0.000*	-0.000*
Party votes in district	0.102***	0.125***
Legislative experience (years)	0.050**	0.015
Party membership experience (years)	0.008	0.020***
Higher education	0.564***	0.481***
District magnitude	-0.193***	-0.172***
District magnitude*female	0.004	0.034
Observations	861	1084
R-squared	0.510	0.614
Adjusted R-squared	0.503	0.609
F Statistic	73.7 (df=12; 848)	142 (df=12; 1071)

Table 10. Explaining vote share for 2015 and 2019 parliamentary elections (model 2.3).

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