

An Analytical Review of Language Economics with a Discussion on Language Use, Policy and Planning in Sri Lanka

Abstract

Language dynamics depend not only on factors as explained by sociolinguists but also on economic factors. Economics of language and economic analysis of language provide analytical framework for language choice, use of language, language development, language and economic wellbeing, language assimilation, language death, etc. This paper discusses theoretical aspects of economics of language and how language dynamics and economic factors are interrelated with a discussion on language use in Sri Lanka. The paper surveys literature on economics of language which considers language as a rational choice. Optimal language choice maximizes economic benefits subject to constraints. If a language does not serve the need of the people, the evolutionary forces work to improve its functioning, thus language remains incomplete. In a framework of human development, language skills enhance economic gains. As per the discrimination theory, marginalization of minority language speakers from economic activities was analyzed. It was also discussed that economic factors drive a society with many languages to choose one common language or to retain or preserve endangered minority languages. Another branch of research focused on the analysis of official language policies of countries. These studies were highly useful in understanding the relationship between economic factors and language issues and resulting language policy planning. In the discussion on language use in Sri Lanka, it is found that official and link language policies do not always ensure equal access to economic opportunities for different language users. Lack of official data and extensive research on language aspects and their economic concerns further restrict the implementation of better language policy and finally resolving language issues.

Keywords: Economics of language, Language and the economy, Language dynamics and economic factors, Language analysis in Sri Lanka

1. Introduction

The world economic order today is highly dependent on the globalization of economic activities such as production, consumption, savings, investment, labour force participation, training and skill development, research and development, migration of workers, capital movements, integration into supply chain networks, trade, etc. The globalization of activities, including economic behaviour of a member of far remote area indigenous community, for example, requires better and effective communication and sharing of information. The failure of communication and sharing of information does not facilitate optimum decision making and therefore produces sub-optimum economic outcomes[88,89,90,91]. Thus, globalization has made the sharing of knowledge and information increasingly important for better economic outcomes (Harris, 1998; Ginsburg and Weber, 2020).

The use of languages for communication is important and language competence is equally important for better communication and sharing of information. As information failure and incorrect information lead to imperfect and wrong decision making, the economic decision making in a competitive environment whether on production, consumption, investment, employment, or any other activity must be based on correct and true information in order to achieve the best possible outcomes. One important point in this respect is the necessity of understanding the language used for communication by a sufficiently large number of people (Zhang and Grenier, 2012; Melnikova, 2017; Grenier, 2021). This can be referred to as the degree of the common understanding of a language. What is more important in this case is the degree of the competence of the language user, a person who contributes to make economic decisions. If an original link person in an economic network speaks a language which is not commonly understood by the large community who contribute to the final economic decision making, the true and correct information of one point of the decision making will not be properly passed on to the next decision-making point in the chain. If such language barrier is present in the economic chain, the final decision making may not be optimum. Therefore, a language, purely in economic sense, should be able to reconcile supply and demand decisions through better passing of information.

The economics of language and language economics may provide analytical framework for practical questions concerning language choice, selection and design of language policy and planning (Chiswick, 2008; Zhan and Grenier, 2012). The economic tools and techniques that apply in analyzing micro and macro-economic phenomena can be used to analyze “non-economic” phenomena such as political, social and cultural choices including language choice, language use, language development, language and economic wellbeing, etc. (Bretton, 1998). Analysis on rate of return to language learning- e.g. Azam et al. (2011), Gao and Smith (2011), studies on the evaluation of effects of language policy- e.g. Grin and Vaillancourt (1999), studies of cost benefit analysis on language policy and planning- e.g. Vaillancourt (1996), Vaillancourt and Coche (2009), Chen (2013), Wang (2021) and further expansion of such research may provide framework for analyzing and finding solutions to many problems associated with language selection,

determinants of language selection, rate of return to language learning, evaluation of language policy, etc.

The language issues and language policy issues are no longer limited to linguistics. These issues also involve in various social, political, cultural, educational, economic dimensions and therefore an interdisciplinary approach for language issues and issues related to language policy is needed to find appropriate and suitable solutions. This paper reviews literature on economic aspects of language and how language and economic outcomes are interrelated and how knowledge is useful in analyzing language issues in Sri Lanka. Section 2 of the paper gives a discussion on economics of language which uses conceptual framework of economics to explain language attributes. Section 3 provides an analysis on how language affects economic variables of individuals such as income, employment, wellbeing, etc. and how economic analysis help language policy and planning. Section 4 provides a discussion on socio-economic and political aspects of language policy issues in Sri Lanka. A summary of the paper is given in Section 5.

2. Economics of Language

Language as a rational choice

Marschak (1965) in his pioneering paper discusses the link between language/s, economic decision making and economic performance. Marschak views language as an object of choice as generally discussed by economists in goods market. The question in interest was to 'make a decision on best communication method (perhaps language) to achieve a set of given goals'. He questions the existence of known languages in the present and the past. The answers to those questions obviously provide reasons for why some languages survive in society while some other languages face the threat of disappearing. Heller (2010) reckons language as a commodity in a broader scale and explains some industries such as tourism, translation and language teaching as producing final products which are in linguistic nature.¹ The essence of treating language as a rational choice or commodity signals that the optimum choice of language and resulting economic outcomes, in the cases of individual or national economy, are closely interrelated.

¹ McGill (2013), however, requires greater specification to treat language as a commodity.

The language as an important tool facilitating economic activities and behaviours demonstrates certain characteristics of economic goods, for example, having a price (as value for use), income generation (as service charge), utility (as subjective gain for use), production cost (as cost of generation of language tools), transaction cost (as cost transferring language knowledge and skills), storing cost for future use (preservation cost), discarding cost (loss due to disappearing/dead of languages), etc. According to Marschak, the preservation or discarding of these characteristics of a language depends on how effective that language is in transferring maximum information at a minimum effort and cost. The literature that dealt with economics of language has the link partly to the Marschak's view that language as an economic choice. The emergence of nation states and worldwide nationalism since independence of many colonial countries in the middle of the 20th century provided impetus for language to become a focal point of nationalism (Bretton, 1964; 1978). Further, the emergence of nation states and nationalism gave rise to nationalistic or domestic economic ideology. At this backdrop, countries with multi-languages faced the problem of adopting a national language policy since different language communities favour the use of their own language in decision making and exchange of information related to economic activities such as education, employment, business activities, governance and administration, etc. These issues were common in Sri Lanka, India, Malaysia, Canada and many Asian, African and Latin American countries in which more than one language are in use. In such situations, countries faced severe problems in adopting a national language policy because it was hard to choose a language or languages as national language because the gains or losses of selecting a particular language as a national language were not very well articulated or were not clearly measurable.

This has led to the emergence of research on the nexus between language and income generation, especially in some countries like Canada. In this framework, the official language policy is seen as a means of improving national income through the choice of most suitable language or languages as national language/s. Research undertaken by Breton (1964, 1978) proposed a methodology of providing an economic analysis to language choice and related activities. Prior to this analysis, the work done under the framework of sociolinguistic approach considered language as an ethnically related attribute and ethnic identity and explained the

differences in economic indicators of groups of different languages speakers (Zhan and Grenier, 2012).

The analysis proposed by Breton and in later works was strengthened through the concepts of economics of education and human capital development. The investment in human capital development which is driven by better education, better health, better nutrition, better training, etc. is expected to increase labour productivity and thus income levels of individuals and the country. Especially, language skills augmented human capital development is expected to enhance productivity through quality labour, better management and entrepreneurial practices and through the improvement of productivity of all other factors of production. It is found that better language skills as a part of human capital (Breton, 1978; Vaillancourt, 1980; Grenier, 1982; Civico and Grin, 2020). In this context, language can be termed as a commodity with price, utility, gains, costs, etc. as described by Marschak. This traditional approach to the economics of language deals with three main areas of research: (i) the effects of language on economic variables such as income, employment, human capital development, investment, etc.; (ii) the effects of economic variables on the changes in various aspects of language, like preserving or discarding of languages; and (iii) interrelated impacts of economic and language variables like language policy and planning and economic status (Zhang and Grenier, 2012; Civico and Grin, 2020).

However, it should be noted that Marschak views were mainly focused on the economic aspects of the existence of known (major) languages, not the economic aspects of the existence of unknown (minor) languages. In present globalization context, many minor or unknown languages are existent for many reasons such as tourism, education, cultural preservation, community needs, etc. The Marschak's view 'language as a choice' is also problematic as all languages that are used not by choice but by inheritance or other reasons. For example, members of indigenous communities carry their own language from their ancestors or due to other reasons, not by their own choice. The use of language/s of a nation state community is not by their own choice but by inheritance. Therefore, it is not precise to consider language use purely as a choice because language use may depend on social, political, cultural or economic compulsions. This approach,

perhaps, deviates from the sociolinguistic approach significantly and starts to gather momentum in explaining the role of economic factors in language phenomena (Zhang and Grenier, 2012). Grin (2002) attributes language skills acquired through investment in human capital development during 1970s and 1980s as a source of economic wellbeing. These findings have led various studies to examine whether language skills of individuals influence their socio-economic status and relative socio-economic standing in countries such as Canada, US and many other countries (see for example Vaillancourt, 1980; Boulet, 1980; Grenier, 1987; Grenier and Vaillancout, 1983; McManus et al.,1983; McManus, 1984). These studies on empirical verification of how language skills affect socio-economic status later resulted in the expansion of research to find economic impact of language policy and language planning (see e.g. Grin, 1990, 2003; Ginsburgh and Weber, 2011) and on the relationship between income earning and language skills (see e.g. Dustmann, 1999; Dustmann and Van Soest, 2001; Dustmann and Fabbri, 2003). However, these research work have been framed in the same or similar methodology in which language is considered as a choice in order to optimize economic gains or benefits.

Language as a behavioural phenomenon

Studies such as Rubinstein (2000), Glazer and Rubinstein (2005, 2006) apply game theoretic framework to analyze economic issues related to language and language dynamics. This strand of literature is mainly based on the Marschak's initial views, which expressed language as a choice. Though there were some prior works using game theoretic approaches to language analysis², Rubinstein (1996, 2000) use game theory models such as optimal selection and evolutionary games to explain the nature, operational mechanisms and evolution of a particular language, may be chosen as an official language of a nation state. In this framework, Rubinstein (1996, 2000) analyze the consistency of features of natural language and optimization of given target functions of the language, also study binary relations of language use such as connections between elements in sets and find that some properties of binary relations are shared in natural language. In a complex game theoretic analytical framework, he concludes that linear orderings of language are the most efficient binary relations under three premises: indication-friendliness,

² See Zhan and Grenier (2012) for references.

informativeness and descriptive easiness. He further explains language as a behavioral phenomenon. If a language does not serve the need of the people, the evolutionary forces work to improve its functioning until a desirable new equilibrium, in which the information is transmittable and utilizable, emerges. This means that the specific meanings of words are determined by the evolutionary equilibrium through the optimization process of the language development. This is an explanation for how utterances are commonly understood through an equilibrium outcome of a strategic decision-making process between speakers and listeners of a language (Zhang and Grenier, 2012).

Blume (2000) examines changes in the structure in language in response to efficiency enhancement. He assumes that a language should provide means of saying 'novel things about novel circumstances'. This provides opportunity for language to remain incomplete in any given time or under any circumstance. Blume explains the emergence of creative language use from common knowledge through the optimization process of the choice of language instruments. The game theoretic approach is also used to discuss the presence of vague terms in natural language. Lipman (2009) argues that there is a sub-optimality in terms of language vagueness and the presence of language vagueness can be explained only in a model of bounded rationality, a state where the rationality of the decision maker is limited due to thinking capacity, information availability, and the time constraint. In a bounded rationality, individuals often make choices that are satisfactory for them instead of making the best choices as most of the times individuals do not know the best possible choice that they can make³. The game theoretic tools can be combined with pragmatics, the discipline that studies the influence of context on the interpretation of the language in use and the contexts in which it is used.

Linguistic and cultural diversity is one of the fundamental aspects of a country in the present world context. The education system, the justice system, cultural and religious behaviours and

³ De Jaegher (2003) shows that how language vagueness can create a situation that makes communication possible between a speaker and listener with conflicting interests and therefore he claims that pre-existed vagueness of language due to epistemic reasons among different groups or communities may be exploited to solve conflicts of interests.

the economic decisions are important role in maintaining the linguistic and cultural diversity. The key agent in keeping and protecting cultural diversity is minority language speaker. Sperlich and Uriarte (2015) assuming a bilingual's language choice for two languages one is spoken by all and another is spoken by the bilingual minority apply the evolutionary stable mixed strategy Nash equilibrium to predict the language behaviours of bilinguals. They found that the predictions track actual data closely. The recommended policy changes to increase the use of second language which is spoken only by minority. As Grice (1989) notes, the conversational implicature – the cooperative principle of conversation, plays an important role in language use and the context in which it is used. Conversational implicature is the description of one's thinking about another's thinking⁴. By combining Grice's cooperative principle in a game theoretic framework, Parikh (1991) develops game pragmatics to examine the optimal linguistic strategy in communication⁵.

The two game-theoretic approaches given above seem to be based on two different arguments. The initial research developed games based on the rationale of language use in debates. In this case, a debate is seen as a situation in which two individuals or groups who have differential views on a certain issue generate arguments in an attempt to persuade a third party to agree on their positions. But Grice's cooperative principle does not support the strategic behavior of debates as it is based on the cooperation between two language users (speaker and a listener) who have common interests (Rubinstein, 2000; Glazer and Rubinstein, 2001, 2005,2006). It means that arguments in debates are necessarily different form statements in ordinary conversations. Thus, the application of pragmatics to explain language choices in a conflicting strategic decision making does not support the Grice's cooperative argument. However, the second strand of literature which uses game theory tools to explain, interpret and guide linguistic

⁴ Rubinstein (2000) notes this as precisely the definition of strategic decision making in game-theoretic framework. Therefore, he describes pragmatics as the rules that determine how speakers or listeners interpret words or sounds used in a conversation.

⁵ Though the initial research in this tradition focused more on game theoretic practice, the recent literature focuses more on the application of pragmatics in game theory framework and uses game theory tools to explain and interpret or guide linguistic aspects such as language use, the contexts they are in use (see Zhan and Grenier, 2012 for references).

aspects such as language use and the contexts they are in use is consistent with Grice's cooperative argument. Therefore, the assumption that audience chooses strategies to minimize the probability of making wrong decisions is not valid in game pragmatics (Glazer and Rubinstein, 2005).⁶ This game theoretic approach to economic analysis of language is more aligned with researches that study the relationship between Economics and language than the researches that study the link between language and economic outcomes (Zhang and Grenier, 2012).

3. Language Economics

Language and economic status

The research on language and economic status, mainly income generation, was pioneered in Canada to assess the relationship between two official language groups (Vaillancourt, 1980; Pendukar and Pendukar, 1998; Zhang and Grenier, 2012). In 1970s and 1980s with the advent of Solow growth model, the human capital development is considered as an important factor that determines both individual's and a country's economic wellbeing. The importance of productivity enhancement of labour is considered as one of the important pillars of the long-term and sustained economic growth. In this framework, language skill is considered as a vital aspect of human development and income earning abilities (Grenier, 1982, 2021; Dustmann, 2003; Leslie and Lindley, 2003; Chiswick and Miller, 2003). A large volume of research has emerged in Canada examining the effects of language skills on income earnings and differences in socio-economic status between Anglophones and Francophones (see e.g., Boulet, 1980; Vaillancourt, 1980).

Grin (1994) labels the emergence of this research tradition as "empirical Canadian tradition" which is later spread into many other countries (See Zhang and Grenier, 2012 and references therein). Many of these studies focused on income earning abilities and socio-economic status of immigrants and migrant workers. In order to address the potential endogeneity of language

⁶ Therefore, Rubinstein in his later work pays special attention to separate game theoretic applications to debates and conversations. Compared to games of conversations, he defined debates as extensive games with sequential strategies and asymmetrical treatment of players, a principal-agent model (see Glazer and Rubinstein, 2005).

skills, i.e. high income earnings lead to better language skills and better language skills lead to high income earning. Recent studies use advanced econometric techniques such as Vector Autoregressive (VAR) models (Leslie and Lindley, 2001) and instrumental variable estimation method (Chiswick and Miller, 1995; Dustmann and Van Soest, 2001; Bleakley and Chin, 2004; Gao and Smyth, 2011). Some other studies examined the complementarity of language skills and other aspects of human capital (Chiswick and Miller, 1995, 2003; Berman *et al.*, 2003).

The relationship between language skills and earnings can be interpreted in two different theoretical angles: through the theory of human capital and the theory of discrimination. As knowledge (ability) of language is seen as a skill, learning of one or more languages is an investment in human capital which enhances economic gains, such as income earning. Therefore, many studies have produced evidence to establish language as a human capital and its positive role in income generation (Shields and Price, 2002; Chiswick and Miller, 2007⁷; Aldashev *et al.*, 2009)⁸. Given that income earning ability is controlled for its all other influences, better language fluency of an employee results in higher wage rates. Gonzalez (2005) finds that lack of language (such as English) proficiency leads to loss of wages of about 39% and higher unemployment rate in US. Further, different attributes of language skills such as reading, writing, listening have positive impact on income generation (Carnevale *et al.*, 2001). Grin, Sfreddo and Vaillancourt (2011) in a general equilibrium modelling framework find a positive impact of language skills on the creation of national income. Zhang (2008) recognizes economic incentives such as high rate of return, more opportunities, etc. as the main driving force of language learning and acquisition of language skills, in a human capital development perspective.

Second focus of research on language and economic status is the issue of marginalization of the minority language speakers in the labour market and in other economic opportunities. The main research problem of this research strand was/is to study how minority language speakers be marginalized and discriminated in the labour market and in other economic opportunities and

⁷ Chiswick and Miller (2007) summarize their earlier work in this tradition too.

⁸ see Grin (2002) and Zhang and Grenier (2012) for more references.

therefore the impact of minority language speaking on income generation, other economic opportunities and in overall economic wellbeing of individuals and community or society. Lang (1986) studies the cost of learning a language and how language discrimination affects wage differentials among members of different language communities. The fact that ethnicity plays a role in language and earning discrimination was studied by Pendakur and Pendakur (1998; 2002) in the context of Canadian minority language communities. They find labour market discrimination against minorities as one determinant of low-income earnings of minority language groups. Levinsohn (2007), in a race discriminatory framework, finds returns to speaking English is low among Blacks compared Whites in South Africa.

Economics analysis of language dynamics

The question asked by Marschak (1965) "... Why are the known languages of the present and the past what they are or were?"(p.136) basically questions the dynamics of languages. The questions of language maintenance, language shifts, language decline and language death all are traditionally subjects of the discipline of sociolinguistics. In sociolinguistics, language is generally described as a cultural heritage. Therefore, sociolinguists advocate the protection of endangered languages based on their cultural heritage value (Grin, 1990; Grin and Vaillancourt, 1999; Zhang and Grenier, 2012). The use of English as the common language, *lingua franca*, in the context of globalization questions the existence of minority languages as global economic opportunities are available more for people with English language fluency. In this context of the emergence of *lingua franca*, one important verifiable research question is to ask how and to what extend the language shifts, language decline, language extinction, are related to economic changes and prosperity. The economic approach to the analysis of language dynamics enhances the sociolinguistic approach by making reconciliation between the understanding on the language dynamics and the reasons to preserve a language or allow a language to die or extinct. Language convergence and the survival of minority languages are the two main areas that the entire economic analysis of language dynamics focused on.

With a greater number of examples all over the world, language convergence is treated as one of the important areas of language development and dynamics. In a society with n number of persons and each person speaks a distinct language, there are two possible extreme ways of improving communication in this society. First, each person should learn $n-1$ number of other languages and the n^{th} person will be able to communicate with all other $n-1$ persons at $n-1$ different occasions. Given the cost involved in language learning and communication in $n-1$ different occasions, the cost of this policy in terms of money, time, energy and coordination is enormous.

Second policy option is all persons agree to choose one language as the common language and then $n-1$ persons are required to learn the common language. From the welfare aspect of both individuals and society, the second policy is more efficient and welfare improving. Therefore, economic factors drive a society with many languages to choose one common language, the *lingua franca* (see also Breton and Mieszkowski, 1977) as it reduces many costs including transaction costs of communication. This does not prevent the presence of many different *lingua francae* in different communities simultaneously. However, as Breton (1998; 2000) note improvement and development in science and technology, emergence of political, economic and cultural powers, social changes such as educational and knowledge progress, migration, etc. and economic dynamics such as supply-chain networks, globalization of business, may reduce the number of common languages and converge to a one mega language. Specially in international context, a dominant *lingua franca* can be emerged such as Latin and French in the past and English at present.

Under the dynamic development of languages, tendency of certain languages to disappear is also discussed in the literature. The discussion is mainly focused on the preservation of endangered languages or languages spoken by minority groups which are known as minority languages. However, disappearance of one or many minority languages is also discussed under the language convergence as convergence to a *lingua franca* requires some languages to be abandoned. People's attachment to their mother language or native language is an important aspect that is discussed in language development and language policies. The tendency towards a *lingua franca*

should consider and provide sufficient weightage for attachment to native language/s as a tool of communication as an inherent asset or property of a community. Economic analysis of language dynamics and development would be able to provide reasons for the choices towards a *lingua franca* or a set of native languages.

As surveyed by Grin (2002), many researchers have developed modelling framework to analyze implications for language dynamics such as the choice for a one common language or a choice for many minority languages. Grin (1990), by treating language activities as endogenous variables, a community with two more languages and considering time needed to learn a language as a constraint, explains that when people make language choices for different activities with the limited time available to them, the choice of language becomes a problem of utility maximization under given constraints. Grin's 1993 model (Grin, 1993), following the sociolinguistic tradition is an attempt to find a "survival threshold" of minority languages. His conclusion is that though a survival threshold can be defined formally, such a threshold cannot be measured only with the information on the proportion of the population speaking the particular minority language. In relation to European market integration, Grin (1993) study the possible impact of European market integration on the survival conditions of the minority languages in the region. Lazear (1999) and Bretton (2000), analyze the effect of economic factors on the survival of minority language or convergence to a *lingua franca*.

It is evident that language choices that trigger language dynamics and development can be analyzed through economic modelling framework. The reasons for the choices of a *lingua franca* or to retain a native language and use them in various activities including economic activities may be analyzed in an economic modelling framework. Among many economic, political and social factors, the attachment to a native language and potential loss of language heritage and associated language-cultural values to be assessed and evaluated in the discussion of survival of minority languages and language assimilation.

Economic analysis of language policy and planning

The later researchers who worked on language and economic decision making deviated from Marschall's views which reckon language as a choice and followed a path to analyze official language policies of nation states where several languages co-exist with different degrees of extensiveness in terms of the use of the language. These works paid more attention on the economic aspects of interrelationships between and among different languages than the economic aspects of communication within a particular or specific language chosen⁹. These studies were highly useful in analyzing and understanding the relationship between economic factors and language issues and resulting language policy and planning measures.

Language policy is a set of principles, rules, regulations and procedures that govern the language use within a nation state. Language policies should be developed and approved by the legislature and implemented by the government authorities to solve issues related to language use and communication. Language planning is a tool of implementation of language policies and refers to conscious intervention by authorities and agencies of the government to resolve language issues within a given group of people. Different set of tools and techniques will be used in relation to resolve various language issues in different locations. Sociolinguistic theories and concepts are been generally used in language policy making and planning. The economic aspect of language use and language development can be used in making the language policy and plans. The economic theory and economic concerns of language provide quantitative insights through rational theory of choice and analytical tools of cost-benefit analysis.

Economics helps language policy making and planning first by way of providing understanding of the decision-making process of the language use and secondly by way of providing tools and techniques for the selection, design, implementation and evaluation of language policy (Vaillancourt and Coche, 2009; Wickström et al. 2018). Economics and its analytical tools can be used to better understand how language use and selection affect economic outcomes or how economic factors affect the language use and selection. Learning a second language enhances income earning abilities, provides opportunities for a better job or job promotions, etc. come

⁹ For extensive survey of literature on economic aspects of language, see Grin (2003), Vaillancourt (1983), Grin, Sfreddo and Vaillancourt (2011), Zhang and Grenier (2012).

under how language selection affects economic outcomes. Globalization of economic activities such as supply chain networks, integration of labour markets, integrated tourism leads to the selection of one common language and may be the decline of many other languages, therefore economic factors are affecting the language choice (see Melitz, 2008; Fidrmuc and Fidrmuc, 2016; Grin et al., 2011). Economic analytical tools such as cost benefit analysis can be used to make different language policies. Though there are limitations in applying quantitative measurement, such as monetary value, in assessing costs and benefits of a particular language choice, qualitative aspects of the costs benefits analysis can be used effectively to assess language policy choices too. As Grin and Vaillancourt (1999) note, it is necessary to redistribute budgetary allocation on language policies as same as in rational choice framework of other public expenditures. It is also proposed to choose languages with minimum total costs of implementing the language policy (Grin and Vaillancourt, 2015).

One possible method of allocating funds is to allocate funds based on proportion of the population of a language group or community. However, in a multilingual society with one dominant language and many minority languages proportional allocation of funding for language development, planning and implementation may not be reasonable and justifiable as the funds allocated for most vulnerable language/s may not be sufficient to protect such languages from the death. Models such as geographical multilingual model and the model that analyses language disenfranchisement model in which the issue of failing of a language to be recognized officially (Ginsburgh and Weber, 2005, 2011) make recommendations of having multilingual policy.

4. Socio-economic and Political Aspects of Language in Sri Lanka

The constitution of Sri Lanka recognizes both Sinhala and Tamil as official and national languages and English as the link language. The Sinhala language is spoken by majority Sinhalese (75%) and some segments of other communities. Tamil language is mainly spoken by Sri Lankan Tamils (11%), Sri Lankan Moors (9%) and Indian Tamils (4%) and small segments of other communities such as Veddha, Telegu, Burghers, Malays (see also Martyn, 2013). There are various statutory

provisions to implement this official language policy.¹⁰ Though Sri Lanka recognizes Sinhala and Tamil as official national languages and English as the link language, there are many minority languages that are in use within the country for example, Portuguese spoken by a minority Burgher community, Malay spoken by a minority Malay community, Telegu, Malayalam, Kannada languages spoken by a minority communities of Indian origin, Veddha language spoken by an indigenous minority community located in various places of the country, among many others.

In the presence of Sinhala and Tamil as official languages and several minority languages, English as a link language is expected to facilitate communication between and among Sinhala language speakers, Tamil language speakers and speakers of other minority languages. In order to resolve language related ethnic issues in Sri Lanka, many studies recommended the development and promotion of Bilingualism in Sri Lanka such as Sinhala-English bilingualism and Tamil-English bilingualism and bilingualism in education (for example see Fernando, 1977; Canagarajah, 1995; Wijesekera and Alford, 2019; Perera and Kularatne, 2014, 2016; Davis, 2015; Herath, 2015). The language rights, the rights to use one's own language in communication and information sharing, are fundamental rights in Sri Lanka. The official language policy does not guarantee the equal wellbeing of Sinhala speaking, Tamil speaking or minority language speaking persons in terms of exchange of ideas and managing day-to-day affairs. After few decades of legal assurance of language rights, the language barriers can, still be seen as a common issue for the members of the two main language speaking communities and especially, the minority language speaking communities. The access to economic opportunities is not equally ensured and distributed among different communities, in particular different language speaking communities. For example, a Tamil speaking person may not be able to express his or her ideas to a Sinhala speaking person up to the satisfaction of the speaker and the listener and the vice versa.

The facilitation made by the link language, English, in communicating between the two main languages speaking communities is well placed among the elite and educated groups. Given the

¹⁰ Refer to relevant sections of the Constitution, its 13th Amendment, Official Languages Act 1956, Extraordinary Gazette 1620/27, relevant Public Administration circulars and other institutional setup including the Ministry with the subject of National Languages, National Language Commission, Department of Official Languages, its provincial district offices, etc

cost of learning English, availability of language resources, time and money, the majority of the lower end and middle strata of both Sinhala and Tamil communities are not very well fluent in English as a second or link language and as a result its degree of effective communication remains low. In this context, the use of English in administrative functions and governance process may create tensions and frustration among non-English speaking rural and less advantageous communities, among Sinhalese, Tamils and other language minorities because of socio economic deprivation and political marginalization done through language restrictions. The political dynamics emerged out of these tensions such as 1956 nationalistic and Sinhala only movement and changes in language policy, 1971 youth insurrection mainly due to economic factors-driven youth unrest among rural Sinhalese community and 30 year-long separatist struggle mainly staged by Northern and Eastern Tamil youth on the basis of economic and political discrimination created by various factors including language issues and discrimination. As Hettige and Mayer (2008) note, exclusion of language concerns and language rights in governance, administration and practice in general had created economic and political tensions between three main ethnic communities and different language speaking groups. According to Sittarage (2022) the linguistic nationalism rooted in the use of English, the British colonial language, as the main national language provided the basis for 1956 Sinhala only policy. This Sinhala only policy and its implementation created serious issues for the Tamil and other non-Sinhala speaking communities as information flow on job recruitments, access to public goods such as administrative services, education and health care to some extent, etc. was severely restricted. This language policy discrimination resulted in serious tension among Tamil and other minority language speaking communities on being neglected their mother tongue and resulting restrictions on economic opportunities paved the way for an ethnic conflict (Hettige, 2015). The Lesson Learned and Reconciliation Committee (LLRC) reported that Tamils who testified before the committee expressed sense of marginalization of them from economic and political engagement due to language policy and deficiencies in its implementation. The LLRC note in its report that many persons of the minority communities are carried out their business transactions not in the language of their choice (LLRC Report, 2011) and as a result the probability of success of such business is rather low.

As De Silva and Palihakkara (2020) note, the proficiency of the link language in Sri Lanka, English language, earns high importance in the present globalization framework as it enhances employability and high earning capacity of workers. De Silva and Palihakkara (2020) study the impact of socio-economic factors of language users on English Language standards in Sri Lankan schools. There are many other studies particularly focused on language issues, language planning, English language education and factors affecting improving English language education (e.g. see Coperahewa, 2009, 2011; Walisundara and Hettiarachchi, 2016).

The promotion of the link language in order to narrow down or fill the communication gap may not resolve the problem as there is always a “need gap” of learning English and its associated costs. For those who complete upper levels of education and those who belong to high strata of society, it is relatively easy to acquire certain level of English language proficiency. However, those who end the education at lower levels and those who belong to middle or lower level of social strata who do not feel the need of English as such important may not engage in effective English language learning and they will be opted for the communication in their own mother languages. This behavior resulted in a sizable number of Sinhala, Tamil and minority language speakers without communication skills in terms of the link language and thus they face the problem of communication with persons in other language groups. In this context, both official language and the link language policies do not work well in communication between different mother language speakers.

Lack of language related economic data

Sri Lanka is suffering from severe data issues in terms of language choice of communities and their economic activities. The annual Household Income and Expenditure Survey (HIES) conducted by the Department of Census and Statistics and the estimates based on the survey is the main source information on income earning and expenditure habits and patterns of Sri Lankans.¹¹ The survey information is the primary information in Sri Lanka about various socio-economic indicators of living pattern of people in different segments of population at national,

¹¹ The survey generally covers a sample of equal size in all 25 districts on yearlong basis and use the information to extrapolate to the entire population.

district and sectoral levels. The information of this survey is used for planning, policy formulation, decision support and further research (Department of Census and Statistics, Household Income and Expenditure Survey Report 2019). This survey covers general characteristics of population except their language and income and expenditure related data of different language speaking groups. The questionnaire of the survey does not collect any information of the language/s of household members and how their economic activities vary with respect to their language choice.

The Sri Lanka Labour Force Quarterly Survey (LFS) which covers about 25,750 households island-wide is another important data source on employment, livelihood, economically active/ inactive population, unemployment, and other various characteristics of the population. Similar to HIES, LFS collects extensive information related to labour force based on various dimensions such as ethnicity, religion, gender, marital status, education, age and information related to employment, unemployment, etc. This survey also does not collect information on labour force with respect to the language choice of different language speakers.

The non-inclusion of language aspects in both HIES and LFS might be due to the assumption that ethnicity adequately represents the language diversity. But such assumption, if employed, gives a wrong picture about language groups and their issues and economic behavior. The non-availability of household income and expenditure and labour force statistics in terms of language choice of sample unit prevents research and analysis of economics of language, economic aspects of language choice and language policy dynamics.

Lack of research on economic aspects of language

Given the slow speed of adjustment or non-adjustment towards the link language by mother tongue speakers, the need for the use of mother tongue/s needs to be recognized and respected. The access to economic opportunities such as income generation through employment, business operation, livelihood activities and human development through better education, health care, justice and the use of public goods such as ports, airports, offices, roads, social welfare systems, etc. should not be denied based on language competence or incompetence of a person. As international language policy orientations have been shaped on the basis of research findings,

e.g. in Canada, systematic studies on economic aspects of language use in Sri Lanka should be a need. But it seems that research on economic aspects of language choice, language use, language extinction, language policy and planning are very limited and it restricts the effectiveness of language policy making and planning.

5. Summary and Conclusion

The globalization of economic activities pushes countries and communities for better and effective communication systems as information sharing has become a must for efficiency and productivity enhancement. A member of an indigenous community receives the opportunity to engage in a globalized work if he or she has better language knowledge and skills. This aspect of language skill requires assimilation of languages and convergence towards dominant language/s. On the other hand, respecting for diversity, exchange of socio-cultural aspects of communities, searching for historical and indigenous knowledge and technologies, etc. require the maintenance of multi-lingual societies and preserving minority and endangered languages. As language assimilation and language preservation depend on economic and other factors, traditional socio-linguistic theory and explanation are inadequate to employ a better analysis on language choice and related issues. Despite traditional socio-linguistic framework, economics of language and economic analysis of language also provide a framework for the analysis of language choice, use of language, language development, language and economic wellbeing, language death, etc. This paper aimed at discussing theoretical perspectives on economic aspects of language and how language variables and economic factors are interrelated by considering the social cultural and political aspects of language. Further, this paper analyzed problems and issues related to language use and language policy in Sri Lanka.

Under the topic of economics of language, the paper analyzed language as a choice as explained in Behavioural Economics. The essence of treating language as a rational choice signals that the optimum choice of language and resulting economic outcomes are closely interrelated. This strand of literature views language as an economic good which constitutes a price, income, utility, costs, etc. This has led to the emergence of research on finding the best language choice for

maximum economic outcome subject to the associated costs. Further, game theoretic framework has been used to analyze economic issues related to language and language dynamics. This strand of literature is mainly based on the view that considers language as a choice and language as a behavioral phenomenon. If a language does not serve the need of the people, the evolutionary forces work to improve its functioning until a desirable new equilibrium emerges. The same modelling framework is used to explain changes in the structure of languages in response to efficiency enhancement, thus language remains incomplete in any given time or under any circumstance.

The research on the nexus between language and economic achievements was pioneered in Canada which assessed the relationship between official language groups. Language skill is considered as a vital aspect of human development and income earning abilities, employment, socio-economic status, etc. Known as the “empirical Canadian tradition” this approach interpreted the relationship between language and economic achievements in two different theoretical angles: through the theory of human capital and the theory of discrimination. As language ability is seen as a skill, learning of one or more languages is an investment in human capital which enhances economic gains, such as income, employment, profits, etc. Second focus is the issue of marginalization of the minority language speakers in economic activities. It studies how minority language speakers be marginalized and discriminated in the labour market and in other economic opportunities.

The questions of language maintenance, language shifts, language decline and language death all are traditionally subjects of sociolinguistics which advocates the protection of endangered languages based on their cultural heritage value. The use of English as the dominant language in the context of globalization questions the existence of minority languages as global economic opportunities are available more for people with fluency in the dominant language. In this context one important verifiable research question is to ask how and to what extent the language shifts, language decline, language extinction, are related to economic factors. In game theoretic framework of economics of language, language dynamics were analyzed in economic perspectives, but here it is the question to analyze how economic factors affect language

dynamics. Language convergence and the survival of minority languages are the two main areas that the entire economic analysis of language dynamics focused on. It was analyzed that economic factors drive a society with many languages to choose one common language as it reduces costs associated with language use including transaction costs of communication. Improvement and development in science and technology, emergence of political, economic and cultural powers, social changes such as educational and knowledge progress, migration, etc. and economic dynamics such as supply-chain networks, globalization of business, may reduce the number of common languages and converge to a one mega language. In this literature, the disappearance of languages is also discussed with the focus on the preservation of endangered languages or minority languages.

Another branch of research focused on the analysis of official language policies of nation states where several languages co-exist. These studies were highly useful in analyzing and understanding the relationship between economic factors and language issues and resulting language policy and planning in different countries. Sociolinguistic concepts have been generally used in language policy making and planning. In that framework, adequate attention was not given to economic aspects of language use and language development. But, economics helps language policy making and planning by way of providing understanding of the decision-making process of the language use and by way of providing tools and techniques such as cost benefit analysis for the selection, design, implementation and evaluation of language policy.

In the discussion on language use in Sri Lanka, we recognize the use of three main languages, Sinhala and Tamil as official national languages and English as the link language, and many minority languages, spoken by specific language minority groups. Though language rights are fundamental rights in Sri Lanka, the official language policy does not guarantee the equal wellbeing of different language speakers in economic terms. The language barrier may still be seen as a common issue in the communication between and among different communities. As a result, the access to economic opportunities is not equally ensured among different language speaking communities. The link language policy has also become a failure specially at the grassroots level as both Sinhala and Tamil communities are not very well fluent in English as a

second or link language and as a result its degree of communication effectiveness remain low. The promotion of the link language in order to narrow down or fill the communication gap may not resolve the problem as there is always a “need gap” of learning English. Research reveal that exclusion of language concerns and language rights had created economic and political tensions between different language speaking groups. Further, policies like Sinhala only policy created serious economic issues among others for the other languages speaking communities. It is evident that both official language and the link language policies do not work well in communication between and among different language speaking communities. Further, the government has failed to collect language related data in terms of economic aspects in main official surveys of the government restricting rational analysis of language choice, language dynamics and how language and economic status have been linked. The non-availability of household income and expenditure and labour force statistics in terms of language choice prevents research and analysis of economics of language, economic aspects of language choice and language policy dynamics. Though there are extensive evidence on how language and economic status are related in international context, studies on economic aspects of language use in Sri Lanka is very limited and inadequate. Lack of data and research of course restrict language policy design, implementation, evaluation and monitoring and finally resolving the language issue of the country.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of manuscripts.

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Details of the AI usage are given below:

- 1.
- 2.
- 3.

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