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BEARINGS OF LANGUAGE DIVERSITY ON MULTINATIONALS OPERATING IN ALGERIA

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DEDICATION

To

My parents for their infinite unrivalled sacrifice and

affection to rear my success…

My siblings for their around-the-clock reassurance and

nonstop insistence

Friends of knowledge… Readers of this work

I dedicate my work

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ABSTRACT

The present thesis is an investigation of the uses of linguistic diversity in multinationals operating in Algeria. It explores the outcomes of language diversification within global business sectors in order to gauge its value at the different levels of workplace production processes, by applying an economically-based paradigm in relation to the presence of a variety of languages. The linguistic diversity was examined in respect of how it may affect workplace routines from communicative occasions and patterns in terms of their flow to informing work performance. By applying a mixed method research, including both quantitative and qualitative approaches, data was elicited from participants belonging to four international corporations operating in the south of Algeria, using questionnaire forms and a semi-structured interview. The results obtained reveal a set of paramount findings. First, in the Algerian business context, linguistic diversity is an undeniable attribute in multinationals, with an increasing ratio of appreciation which is an effect of the increasingly globalized business. Second, in the contexts investigated, language diversity is a significant feature. Though with distinguishable degrees of frequency, five main languages are being used: Arabic and English, along with Chinese and French, as well as some Berber, with the latter at a peripheral level in especially informal spoken discourse. Third, there is an unprecedented employment of English and Arabic in the national delegate company, English and Chinese with Arabic in the Chinese firm, and English, French and Arabic in the French-based corporation. Indeed, English is at the center of the linguistic trajectory, embodying a *business lingua franca*. Lastly, overall, multilingualism in international business workplace involves an economic impact. Global business connotes a range of linguacultural aspects which on the surface may imply divergence but, at their core, yield a diversity of insights enriching the work context with the advantages of diversified international business know-how assets. In other words, globalized multilingual business is economically rewarding.

Keywords: *Algeria, human capital, linguistic diversity, language economics, multinational business*

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LIST OF ABBREVIATIONS

L1: First/Mother Language

LPP: Language Planning and Policy

SPSS : Statistical Package for the Social Sciences

List of International Phonetic Transcription Symbols Corresponding to Arabic Letters/Symbol

IPA	Arabic letter/symbol
a	◌َ
aː	ـا(ى at word end)
aj	◌ْـَي
aw	◌ْـَو
b	ب
d	د
dˤ	ض
dʒ	ج
ʒ	
ð	ذ
ðˤ	ظ

f	ف
h	ه
ħ	ح
i	◌ِ
iː	ـِي
j	ي
k	ك
l	ل
ɬ	
m	م
n	ن
q	ق
r	ر
s	س

sˤ	ص
ʃ	ش
t	ت (sometimes ة)
tˤ	ط
θ	ث
u	◌ُ
uː	ـُو
w	و
x	خ
ɣ	غ
z	ز
ʔ	ء
ʕ	ع

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General Introduction

Having analytically browsed through the theoretical background offered by previous researchers; having probed substantial results research in "Economics of Language", "Economic of Education", "Corporate Business Communication"; and being personally acquainted with employees (both bosses and subordinates) within multinational companies in Algeria as well as elsewhere abroad, we began to reflect on matters of multinational business workplaces and multinational corporate workforces, especially in a socio-economic and sociolinguistic context. The recurrent interaction with these employees has contributed to strikingly raising our consciousness of their persistent aptitude for foreign language learning for the value it has at the different work communication levels; being at grips with more than just a single tongue at the place of work today appears almost prerequisite.

These employees expounded passionately on their intense longing to ameliorate their communication skills in foreign languages, viewing such an endeavor as conducive to, among other considerations, promotions and salary augmentation. After browsing through extensive analyses of language practices and realities in multinationals, e.g. translation and (specialized) language use, we have come to understand language as having a persistent positive relationship with the socio-economic statuses of companies and individuals in the cosmopolitan work environment. Thus, multilingual competency apparently awards economic prestige and status.

Several foreign languages practitioners and researchers refute the factual claim that linguistic affairs can be understood from economic analyses and vice versa. Despite this controversy, our purpose herein is to demonstrate how linguistic competency, policy,

identity, and general contexts work together to influence economic contribution and production.

Effective communication can be challenging to achieve even among individuals of a small group or community; miscommunications are for that matter recurrent in day to day life among people of the same language and culture. This is basically because members of one and the same society have their distinct interests and unique personalities each. This is even more pertinent a reality in the corporate world, especially within multinational workplaces, all the more so because people of different backgrounds come together in a common work environment. In the introduction of her book "Corporate Discourse", Breeze (2013) makes a very good point when she argues that companies have taken over a role of importance rivaling that of nation-sates. The author takes this even further by claiming that the number of the top-most influential world entities known to us today is clearly dominated by companies: "Of the 100 largest economic entities in the world today, 51 are corporations and only 49 are countries… It is obvious that the behaviour and language of corporations should be of interest to all of us, since we are all bound up with them in many different ways, and we are inevitably affected by their actions." (p. 1)

That said, the internal communication of organizations is basically set for socializing and building relationships among employees and for work conduct by means of disseminating information and giving instructions. The effectiveness of such a communication is linked to the adequacy of the language(s) used; and this brings the process of language learning to the fore of interest. In fact, with the increasing internationalization of business informed by the globalization of economy, foreign language learning has become the synergy between econopolitical and educational bodies the world over, in the time when English clearly acquired a hegemonic status in the

international business across the last decades. Ouahmiche, Beddiaf, Abderrazak, & Beddiaf Abdelkader (2017) maintain that

> [f]oreign languages are irrevocably defined as a necessity if we want to evolve in a world in perpetual metamorphosis. It is undeniable that the English language, the most commonly used tongue in all sectors of life on an international scale, is in vogue (…) there lie behind students' inclinations of opting for some university training in a certain field more than a few decisively effectual influences and factors, the sum of which in the main owes much of a deal to economically-grounded drives. (pp. 18-19)

Marschak's (1965) article "The Economics of Language" emphasizes the requisite importance of language in economic perspectives; language is depicted to possess economic features. The author contends that linguistic and economic practices are dynamically interwoven. This paper of Marschak is considered to be the instigator of the economic-lingual line of thought that brings the interactive nature between linguistic and economic variables to highlight. It marked the start of a new and emerging field generally referred to as "Economics of Language" or "Language Economics". This nascent filed of research has been of particular interest to an increasing number of researchers (economists, most especially) across the last few decades. The inherent potentials of some language to deliver as many messages as possible, with the least exertion and in the shortest time possible, makes it strongly desired in the economic activities. Until recently, the field of economics of language, its approaches, and its methodologies had not reached full maturity. Researchers have previously been blinded by the generalities as opposed to the particularities of the field.

From early research on the interaction between schooling and labor market returns emerged a new and growing branch of study that has received attention as a discipline only in the 1950s: “Economics of Education” or “Education Economics”. The field has evolved rapidly to subsume virtually all spheres relatable to education. Economics of education is based on the insight that education equips learners with the knowledge and skills that have an economic/market value; and, thus, analyzes the socio-economic determinants and consequences of education. It applies economic theories and principles to the domain of education. The consideration of the cause and effect relationship between education and economic dimensions allows education economists to reflect on the monetary and non-monetary effects of investment in education and human-capital accumulation.

There are two key economic theories used to draw on the reciprocity of effect between educational achievement, including language skills, and economic returns: Human Capital (Formation) Theory and the Sorting Theory. Human capital theory looks at how training and education boost individuals’ productivity which further determines earnings. The sorting theory, however, perceives education to play the mere role of displaying the innate talents of individuals, with no effects on their endowed abilities per se whatsoever.

Initially developed by Becker (1962), human capital theory has four basic assumptions, according to Glass and Johnson (1988): individualism, private property rights, rationality, as well as market economy. The theory postulates that incomes increase with age because the youth are predisposed to spend on developing their human capital. It highlights the way in which education augments the productivity and efficiency of individuals by improving their innate skills and abilities which end in determining earnings. Acquiring some language(s) constitutes an investment with economically

profitable returns in human capital. Human capital is crucially decisive in determining the degree of the factual exertion that language skills have on earnings differentials (Ricento, 2006; Grin et al., 2010). Many studies (e.g. Chiswick & Miller, 2002; Lee & Miller, 2004; Ricento, 2006; Grin et al., 2010) demonstrate that the increase in years of academic attainment is reflected in the increase in chances for better positions in employment and opportunities of incremental revenues and other employee benefits.

An alternative theory of the demand for education is based on the economic model of Screening and Signalling (or Sorting), whose main idea is that the accomplishment of education is a signal of an individual's ability. Pioneered by Spence (1973), the sorting theory encloses a pair of sub-models whose difference lies to the core of the game theory: The Screening Hypothesis and the Signaling Hypothesis. The sorting theory assumes that education does not instill skills or increase productivity of individuals, but rather it simply signals them instead, as they are already there. It is usually thought that the sorting theory is the opposite of the human capital theory, but if examined closely they both occur to share more affinities than disparities.

Chiswick and Miller's (1994) conceptual framework postulates that a person's language skills advance by virtue of perceived economic benefits, by means of exposure and by way of the availability of favorable conditions. Based on the 1991 Canadian Census data, Chiswick and Miller (2001) endeavored to test their model of language acquisition among immigrants. The economic well-being and returns of the foreign-born (not least in terms of earnings) are determined mainly by destination language mastery – and secondarily by citizenship, education, work experience (veteran status), marital status, and employment status (Chiswick and Miller, 2002). On the other hand, immigrants' language fluency and efficiency, according to Chiswick and Miller (1994, 1995, 2001), correlate with the place of birth and geographic distance between the country of origin and

the host country, age of immigration, marital status (getting married to a native speaker increases language proficiency), the obtained level of education (the higher the educational attainment the better), the time spent in the destination setting (longer period of residence improves language abilities better), place of residence (prior and subsequent to immigration alike) and refugee status, as well as minority-linguistic concentration intensity (frequency of use of the destination language).

The mastery of the majority language only does not ensure access to high-paying jobs while command of English guarantees a minimum of 15% wage premium (Toomet, 2011). Isphording (2013) found considerable returns in the Spanish labor market to fluency in foreign languages. Empirical literature showed that language proficiency affects economic returns.

The aim of the study in hand is to explore the correlation between multilingual practices and multinational enterprises. That is, it aspires to reach out to the linguistic potentials towards the economic prospective. Believing that multilingualism is predictably an imposed reality in multinational work environments, the present study seeks in the main to uncover strikingly salient outcomes as regards the employability of language plurality within corporations of a multinational operation, along with its inherent effect on alleviating miscommunication and elevating lucrative yield. The study aims to settle on whether plurilingualism is profitable and lucrative for multinationals, considering its economic status aspects. Likewise, in addition to aspiring to work out what influence polyglotism practices on the social and economic status, this study hopes extend so far as to bring about significant contributory findings regarding how multilingual practices inside multinational workplaces facilitate person-to-person communications and boost productivity.

As a matter of fact, the worth and merits of the present survey are multidimensional. Accordingly, we should subsequently strive to bring into the open its many-fold significance. To begin with, the results and findings of this research will be of contributive directional orientations to the literature of language economics and (business) communication, as well as language policy and planning. They will further manifest language use in economic settings. Moreover, since the field of economics of language suffers from a dearth of research in language planning and policy, as well as language multiplicity practices in the workplaces, the conclusions of this study could open the gates for future research. These findings could help subsequent researchers to further explore the inherent correlating mechanisms of languages and economics.

It is justifiably arguable that languages compete for preponderance in undertakings of a transnational character, such as: trade dealings, business affairs, and communication relations and contacts, as well as world market exchanges. And once some language attains this status of prevalence, the world becomes its oyster. This, in the main, tends to be symbolized by the worldwide domination of English, being currently a measurable reality and the object of a critical discourse or of a favorable panegyric in a linguistic market. The formerly universally economically reputed French language is presently much retreating in status with the increasing predominance of English market leadership.

The aforementioned considerations stand for an inherently potential add-on to the here-weighed-up frame along the way of logically reflecting on the subject matter under pursuit, and do much make up for one of a solid platform towards a better exposition of the issue of concern: the investigation sets off on the basis of a professed claim that multilingual competency effectively bears on economic productivity. Ostensibly, besides multilingual individuals' spillover ensuing from work skill, a multiple linguistic competency breeds extra up-and-coming outcomes and generates further desirable

atmospheres, especially economically. One key economic effect is lucrative productivity in the dimensions of improvement springing from availability of diverse languages at the workplace and among individuals.

It is noteworthy that one such element setting exuberantly forceful rivalry in the scopes of business and trade as regards corporate yield reinforcement in general, and revenues maximization in particular, is determining which dynamic circumstances, conditions, and constructs may hinder economic achievements. Contriving new and better ways to overcome communication hurdles and resolve workplace challenges will produce perceptibly healthier corporate environments.

It would, in effect, be significant to mull over the bearings of coexisting multiple communication tools upon corporate productivity. Worth pointing out, professionals engrossed in workforce productivity and business communication, and practitioners immersed in issues related to economics and language policy have long taken ample consideration of the underlying rationales behind the effects which linguistically-proficient employees have on economic production; especially with regard to those with simultaneous command of several tongues, i.e. polyglots. It is perceived that the solution to the usual complex situations challenging multinational workforces' effective productivity and international business success lies in disentangling the mystifying nexus bringing multilingual proficiency side-by-side other advantageous qualities in individuals. Having been appositely adhered to, such reflections will ultimately explain why polyglots notably outperform monolinguals in task execution in multinational workplaces. It is, therefore, particularly in the current globalized economy, worth researching how solid multilingual skills improve and diversify career prospects, boost corporate respect for polyglots, and optimize workplace diversity.

As the investigation is designed around linguistic and economic variables, the queries run through the following order:

1. Do language coefficients interplay with economically relevant issues?

2. Given that linguistic and economic agents interrelate, is it a precursor that multilingual profiles are more rewarding in the workplace?

3. In the current globalized economy, to what extent do multilingualism and multinational productivity correlate? How indispensible is this correlation?

As provisional answers to the foregoing addressed questions, we postulate the following hypotheses:

1. It is very likely that linguistic variables and economic variables interact soundly with one another.
2. If 1. is true, it is probable that multilingual profiles are more rewarding in the workplace than bilingual or unilingual profiles.
3. If 1. is true, then multilingualism contributes to productivity in multinationals.

That the study at hand seeks to explore the presumed ensuing mutual causal relationships between the variables, it legitimately calls for a descriptive design to evaluate whether multilingualism would actually harmonize and maximize multinational productive output. The researcher is fully aware of the benefits of an experimental design and its credibility. However, because little or no control of variables is possible, an exploratory mode would serve the study better; by consequence, a flexible design of a descriptive nature will be used for this investigation.

However, we should also like to explore the perception of business actors and professionals of language diversity within multinational workplaces; and how multilingualism helps the multinational workforce to navigate the intricacies of interpersonal communication and overcome task difficulties in a multinational setting. A

fortiori, a hybrid of both quantitative and qualitative approaches would legitimately characterize our investigation; we, as such, trust that a descriptive method, which is more orientated to a qualitative approach, will serve this purpose. Nonetheless, a quantitative touch will be included. Actually, a descriptive design "*helps to identify the problem in a current practice with a view to improve outcomes*" (Burns & Grove, 2001, p. 248). Despite divergences in ways of accessing knowledge and addressing research questions, the quantitative approach and the qualitative method, besides effectively sorting out the observed research problem and raised questions, are in more ways than one complementary; the former allows the generalization of the results and touches on the interaction of the variables, whereas the latter yields a piercing comprehension of the resource-person's philosophies (Maree, 2007).

The survey is presumed to come into play amid hydrocarbon multinational organizations operating in the south of Algeria. Purportedly, the exploration will come into effect after field work permission is gained to access the aimed setting. The population of our investigation is a hybrid of diverse subjects varying in their respective backgrounds and personal traits; among others, some such individual characteristics are: age, gender, origin, mother tongue, number of languages mastered, and culture. The staff in the workplace rigs is the targeted study sample.

The nature of the theme entails the employment of more data-gathering means than just one. With a mixed method research design being opted for, and taking into account the objectives of the study, the data-gathering tools employed are survey questionnaires and interviews. In what follows is a brief introduction to the methodological perspectives, while detailed coverage is offered in Chapter four restrictively devoted to methodology. Worthy to mention, the researchers' initial plan was to include other data gathering tools, but then that was left to the prospective circumstances as the case maybe.

In order to obtain preliminary data for the purpose of setting up a platform for the research theme in hand, questionnaires have to be used. The questionnaires would expectedly encompass both closed- and open-ended questions. In this way, the subjects will find it easier to fill in the questionnaires by virtue of the variability of the queries between the multiple-choice and open-response types.

It goes without saying that interviews are of ample support to attain significant data about participants' perceptions of the subject matter. Interviewing tops other research techniques in that it allows the interviewer to tease, address, and raise certain pertinent matters in order to obtain spontaneously revealed answers from the interviewee regarding the issue of concern. An ethnographical in-depth semi-structured interview appears to be the appropriate type for the purpose of the present study.

The obtained data was organized, coded, classified and treated accordingly; then reflected on exhaustively and analyzed diagnostically. Quantitative data from the questionnaire was treated using a processing software program (SPSS) in a statistical format, before proceeding with the reporting, presentation, analysis, and interpretation of the results. The interviews were categorized into themes, summeries of them were written, then analyzed.

For multinationals, privacy must be guarded at all costs; thus, the study is meant to disregard confidential information no matter how it will serve the research. Our research is our concern that should be undertaken meticulously, but ethical considerations of confidentiality will be held above all others, even if this means a flaw for the research in question.

This thesis comprises two basic parts, theory and practice. As to the theoretical part, which consists of three chapters, it attempts to steadily build up a background

literature review to the research line of study. Therefore, Chapter One is devoted to the grounding theories setting the myriad of ways in which education and economics overlap. It sets out from the notion that education is regarded as a form of an abstract capital which surprisingly excels over the usual material capitals reflected in monetary resources. This chapter also looks at the different revenues that education brings on individual and social levels. Further, it argues for how such effects can by extension have marketable and non-marketable attributes, and in so being they are critically liable to swing one's life pendulum conditions to the best end.

In Chapter Two complementary material in the same direction as Chapter One, but more exclusively devoted to economic theory about language at workplace. It equally focusses on demonstrating the market value of foreign languages in industry sectors as regards especially foreign language skills as central factors for work employment, production, profits and value creation at the business contexts.

Chapter Three covers host country language efficiency and its socio-economic outcomes and the issues relating to language diversity at work. It looks at the different theoretical conceptions of the co-existence of different linguistic repertoires in international business corporations, demonstrating the qualities originating from simultaneous multivariate linguistic systems presence at multinational business. Likewise, in the second part of the study are four chapters.

Chapter Four is about the research methodology, offering scope to the research philosophy anchoring this project, from design, approach to paradigmatic orientations of the research type chosen along the data-elicitation tools employed ending up by introducing the data treatment procedure regarding the statistical test appropriate with a justification of the reasoning behind its adoption.

Chapter Five is completely dedicated to quantitative data presentation and analysis, in which the statistics model is put in practice in order to assess the value of the data obtained from the questionnaire forms. Chapter six presents the analysis of the qualitative data obtained from the semi-structured interviews. The results of chapters five and six will ultimately serve as the raw starting point for concluding the research findings in the last chapter (Chapter seven).

Chapter Seven, thereof, is built upon such data analysis, is a critical discussion of the results and a synthesis to findings that shall function as a direct test to the hypotheses drawn at this project's outset. It is the inferential basis for extrapolating the workout for the questions giving direction to the research. Finally a general conclusion is provided in a form of assessing the merits of the work overall with a number of elements towards the end, including mainly research implications, limitations, recommendations and directions for further research.

Chapter One:

Education Economics and

Related Theoretical Frameworks

1.1. Introduction

To the effect that education economics concerns itself with investigating economic issues in regard to education, there are two keystone theoretical frameworks underlying the explanations provided in the literature relating to the correlation between the educational level and incomes. The first model known as human capital (whose focus is on the productivity-enhancing and wage-premiums-augmenting effects of education) is initially instituted by Becker (1975). The second one is known as the sorting model, which is of two sub-tenet constituents: signaling and screening hypotheses. This model mainly approaches educational attainment as a filter of individual's appropriacy at work based on their inherent characteristics which are thoughtfully rewarding in an economic sense. It was inaugurated by Spence (1973, 1974). Worthy of note is that the fundamental dissimilarity underlying the two hypotheses in this model reflects in the game theory.

1.2. Setting the Stage

While to the minds of many scholars these two models are as different as is chalk from cheese, there is no denying of common sense to Weiss' (1995) claim that the sorting theory is an extension but not a rival of the human capital theory. And a juxtaposition of them both at a more profound level may reveal more meeting grounds of likeness in principle and orientation than the points of disparity usually pointed out by the relevant bulk of research. This is especially pertinent in consideration of the week screening hypothesis as compared to the strong screening hypothesis. Both human capital and sorting theories converge, on balance, in that educationally formed graduates earn more compared to non-graduates who have none educational degrees. The

point of divergence between them lies in that the former attributes productivity-augmenting effects to schooling but the latter limits the role of education merely to identifying individuals with high productivity potentials. Counterarguing on why employers are seen predisposed to price educational attainment, both models are in an agreement that schooling is pursued to the extent where the marginal benefit in terms of wage schedule is on a level with the marginal cost of it.

Economics analysts as well as language economics authorities and practitioners (Grin et al., 2010) have typically been considering education to be of indispensable relevance as to its yield in terms of income and returns premiums (Chiswick & Miller, 2002) as well as economically active ranks in the hierarchy of post occupations (Stigler,1962; Lee & Miller, 2004). The proceeds, returns and gains, to scholars, as such, would no sooner be at disposal than as and when dedication of efforts, time, and resources had been due. It is reported by a good body of studies that the economic well-being and returns of the foreign-born (not least in terms of earnings) are determined in the main by the educational attainment as well as the destination language mastery, added to citizenship, education, as well as veteran, marital, and employment status, besides others.

1.3. Human Capital Theory

As an asset inherent in the making of business and in sustaining its success, capital, for Schiller (2011), is the fundamentally required estate considered for investment in view of anticipated returns. Noticeably, apart from any distinctly narrowly specified consideration, reference or form, the concept *capital* stands for any possession of assets; be them external or internal, basic or secondary, concrete or abstract, artificial or natural. Wang and Sun (2009) hold that a person's knowledge and skills, such as foreign linguistic adequacy, literacy and numeracy, that can be of potential bearing on a firm's pursued

objectives represent a form of human capital. Taken to amalgamate other human attributes besides knowledge and expertise with individual capacities of learning, training, developing and performing accordingly, human capital owes any of its development and boost to the process of education (Becker, 1964).

In terms of human capital theory, capital is an investment with prospective economic returns. The first contributions to human capital theory were initially by Gary Becker (1957; 1974), Schultz (1962) and Mincer (1962), whose works mark the earliest inceptive embedment of the human capital theory into econometric research areas by the beginnings of the 1960s. However, a few decades afterwards, Marginson (1993) traces human capital as a concept back to several centuries. Initially concerned with expounding on the decisions taken at the individual level regarding the choices made as regards education and training, the theory according to Sobel (1982) was swiftly extended to broader economic choices and behavior of individuals, such that, occupational decisions and work-related choices, as well as migration, enter alia. Becker (1962) speaks of human capital theory to have sprung from the neoclassical school in the stream of thought of economics, with its postulation of perfect competition among market players effected by market forces with market entry and exit free of charge. The theory originated by virtue of the assumed mutuality of effect between education and economic returns, the latter of which has been a subject matter of concern to many economists along years.

If human capital theory was a soulless body whose inclusion and application were hardly anyway discernible in the organizational sphere, it is indeed Becker's (1962, 1993) distinction between general skills and specific skills which gave the theory the spirit needed to extend investment in human capital into organizations. General skills are those that if adeptly sustained through education, they would maximize individuals' productivity, anywhere employed, regardless of the organization of work. Specific skills,

however, have to do with employer-sponsored training which may exclusively boost the productivity of individuals within that very organization of employment. This distinction was the mainspring of the theory's promotion, which both further solidified its keen reality-based predictions and interpretations, and promoted its framework to comprehend human resources development practices at the organizational level.

Marginson (1993) phases the development and application of Human capital theory tripartitely as follows:

- Initially, during the 1960s, the social rates of outcome to schooling was the mainstay of the implementation of the theory whereof public expenditure on education was given due devotion towards promotion of economic thrive. So at this stage, the foremost concern in public policy was the social returns of investment in education.

- Secondly, marking the second stage of the development, the following years of almost a complete decade marked a period of fragmentation, obscurity, and perturbation wherein public investment in human capital occurred to be lagging behind and less as propitious as it was thought to be. Despite this disillusionment and enervated potentiality, the theory continued to have its deep impact in academic econometrics while fostered for the study of earnings determination. Living on someway in academic contexts all along, the theory was not so influential within the frames of public policy during the 1970's.

- Ultimately, revitalized as from the late years of the 1980s at a policy level, the theory started to regain status and influence towards developing a trailblazing theoretical framework; where the nexus between academic achievement and economic performance occurred to be increasingly linked to technological changes

and innovation. Importance, at this third and last stage, was more oriented to individual returns on educational investment in public policy. This nourished the spreading out of fee-paying education.

If Rohling (1986) claims that human capital theory takes education for an investment in preference to a service that will yield prospective higher incomes, other researchers, like Schultz (1961, 1962, 1963), Mincer (1962, 1974), and Becker (1962, 1975), contend that the theory simply takes education as a paragon of workplace productivity and, as a result, of increased incomes for individuals. Education as such turns out to be the best cost-effective investment whose end-result, in the view of Brown and Sessions (2004), should equilibrate marginal opportunity costs with marginal productivity profit. Entertaining roles of explicit influence and pertinence in a couple of social sciences research domains, human capital theory is especially reputable in sociological and demographical studies (Quiggin, 1999), and is conspicuously more so in economic-related research areas.

1.3.1. The Underpinnings of Human Capital Model

On account of considerably higher individual prospective payoffs respecting current costs of education (Rohling, 1986), the theory takes human capital resources to compare to physical capial assets (Wang & Sun, 2009). If language skills, in the labor market, can be regarded as a capital and can be treated as a commodity as such. Knowledge overall, in the workplaces, should then be taken as an asset that compares to equipment. How education informs collective and individual economic returns –being one of the central issues addressed in the economics of education– has been reported by several studies and is, for that matter, easily visible by means of simply collating earnings disparities between levels of educational achievements among individuals.

Expounding on the causality holding education to productivity, human capital theory consequently further justifies the reciprocity of rapport between education and earnings by postulating the mechanisms of effect the former exerts on the latter. Card (1999) declared that

> [e]ducation plays a central role in modern labor markets. Hundreds of studies in many different countries and time periods have confirmed that better-educated individuals earn higher wages, experience less unemployment, and work in more prestigious occupations than their less-educated counterparts. (p. 1802)

In a like manner, an empirical research allowed Chevalier et al. (2004) to carry out a commendable work of comparison between the results of those studies, concluding earnings to approximate a rate of 10% more for each additional year in education. While Mincer and Polachek (1974) pioneered in presenting empirical evidence of the linear variation of incomes in consideration of educational level, it is documented in several recent research studies (e.g. Beblavy et al., 2013; Cellini & Chaudhary, 2014; Liu et al., 2015; Yunus & Hamid, 2016; Yunus & Said, 2016) that higher educational achievement directly and significantly impacts labor market wage premiums and employability opportunities.

If higher educational levels yield such labor market outcomes embodied in better opportunities of employment and increased wages, it is because individuals with higher educational merits transpire to possess the key attributes of productivity. The human capital model is based on the conception that schools function as environments wherein learners are supplied with valuable knowledge and are equipped with auspicious skills necessary for their life-to-be, particularly for their eventual work life as such those competencies are valuable at the workplace and are invaluable in the marketplace. So, an

investment in the current income despite the actual costs rises to favor in view of the perceived after-expenses outcome and the expected later-life payoffs.

Be that as it may, the notion of human capital investment was further extended to comprise not only expenditures on education but also the fee-free acquired expertise and accumulated experience (cognitive, professional or otherwise). It is not an uncommon verity that employers hold quite positive attitudes with regard more educated individuals as they are thought to be more productive, a quality that employers prove ready to pay higher salaries for. If this testifies to something it is simply that incomes accelerate in response to the level of education and in view of any rationale bearing whatever effects on the degree of productivity.

From a human-capital-theoretic perspective, earnings mirror essentially the educational level of individuals, but reflect their expertise likewise; and so people tend to afford the costs of education, and training, in consideration of its subsequent potential life-time pay-offs a worthwhile investment.

1.3.2. Language as a Form of Human Capital

One form of human capital is embodied in foreign language skills. Learning foreign languages, as investment in human capital, yields positive economic benefits in the labor market. Promoting far-reaching foreign language ability, argue Seargeant and Erling (2011), would expand economic development opportunities in today's globalized world.

As a form of human capital justifiably taken for an economic asset of evidently potential individual and collective productivity prospects in the labor market, language skills have been given special concentration and consideration in the literature for over half a century. Actually, besides touching on the labor market value and socio-economic benefits of competences in official, local and foreign languages among natives, the lion's

share of the literature is concerned with immigrants for whom proficiency in the destination language, essential for their integration, would assure better socio-economic returns.

Recognizing foreign languages as a form of human capital, Grenier and Vaillancourt (1983) were the first to instigate the economic(ally)-based analysis of the individual decision or choice to invest in foreign languages learning. They employed Becker (1964) and Mincer (1974)'s framework to expand on individualities' bearings to gross expenditure and gross receipts, as well as the knowledge on the weight of the returns to such investment.

1.4. Sorting Model

As one of the most attention-grabbing economic models among economists for about half a century already, the sorting model has generally been erroneously taken as rival and antithesis of the human capital model, even among its early partisans. This model holds that education is devoid of any intrinsic social value and education systems serve merely for ranking individuals and attributing those with recognized competences and potentiality onerous work functions with sheepskin effects. It postulates that individual, in contradistinction to social, returns to education cannot be taken to mean that education boosts productivity. The underlying assumption, therefore, is that a high level of education reflects the potential inborn traits of individuals and so schooling is held to function primarily as an information-revealing medium of the less observable personal traits of laborers and reflect that to potential employers in the labor market by distinguishing individuals with more naturally-endowed productivity-attributed characteristics.

Sorting-theoretically speaking, Education provides organizations with the required information on how potentially productive an individual can be as regards the educational

level profiles monitoring classification criteria and hiring decisions already set by employers to screen job applicants. Not only does it function as a screening mechanism that screens the ability of individuals (Swanson, 2008) and signals productivity (Spence, 1973; Arrow, 1973; Stiglitz, 1975), but constitutes equally well a gateway to higher-level, hence high-income, work positions (Brown & Sessions, 2004).

The sorting model highlights that education does not in itself affect productivity-enhancing traits within people or gain them higher wages, rather it serves as an indicator of the person's innate characteristics and untaught skills. It holds that certificates and degrees are the sorting component based on which employers screen or signal individuals and choose whom to take as most appropriate for a given work position. If among employers, sorting-theoretically speaking, greater significance is attributed to *educational success as a signal* they essentially resort to to screen their choices of the applicants they see fit for the available work posts, it is simply because academic credentials act as signal for individuals with great aptitude for productivity.

1.4.1. The Strong Screening Hypothesis

In the strong version of the model, known as *strong screening hypothesis*, productivity is perceived as exclusively innate with no mutability effects whatsoever by means of education. What education does while serving for provision of degrees, indicative of productivity potentials of graduates to employers, is merely help sort degree holders as individuals with higher innate abilities. To that effect, Koch and Ntege (2008) contend that job position salaries are determined and fixed right from the start as employers are not in shortage of knowledge about how potentially productive applicants actually are. This is because employers come to grasp that information at the outset as from demonstration of credentials by candidates, with prospective accumulative work experience propelling no

changes whatsoever for the boost of employee production capacities.

Considering the apparent irreconcilability this extreme version of the sorting model puts forward in opposition to human capital theory regarding the relationship between education attainment and productivity traits of individuals, Weis (1995) and Brown as well as Session (1998) conclude that this intense perception of the model rather runs short of empirically verifiable evidence.

Then again, Weis (1995) alleviates the degree of the contention by setting forth that the sorting model differs from human capital theory in that it merely highlights some characteristic productivity-related qualities. Counted as part of a persons' human capital, further argues the author, such qualities are those that go unnoticed by employers and which correlate to schooling but are an inherent and immutable part of the individual. And this in turn calls our attention back to the *weak screening hypothesis.*

1.4.2. The Weak Screening Hypothesis

The *Weak Screening Hypothesis* considers the imperfect signaling dimension of educational achievement and how the level of education simultaneously exerts some productivity-boosting effects besides its productivity-information-revealing role. As per earnings, this moderate version of the sorting model claims that while employers cannot attain full information of the actual extent of productivity some worker can yield, payments are initially set proportionally based on the laborer's inferred productivity potential levels, only to increase with effective workplace experience or decrease owing to defective on-the-job expertise prospectively.

It can thus be inferred from what preceded and on account of Weis's explanations that education and (innate) productivity in the sorting model framework are in mutual

causality. This tacitly indicates the productivity-enhancing as well as inborn productivity-revealing function of schooling. If educational attainment and training accomplishment are key requirements for career progression and advancement opportunities (Torraco, 2001), basic informing factors embodied in degrees, certificates, and diplomas then act as indicators of potential productivity.

1.4.3. The Difference between the Screening and Signaling Hypotheses

The distinction between the screening argument and the signaling argument lies in that the former posits complete knowledge, i.e., perfect information attainment, on the employers' part about the productivity traits of potential applicants who are required to meet a minimum educational level stipulated by employers to screen their innate abilities; whereas the latter postulates basically lack of full knowledge, i.e., imperfect information, on the part of employers about the yield capabilities of candidates. Thus, by the same token, full awareness of individuals about their productivity characteristics based on the achieved levels of education would signal their natural abilities to employers. Other things being equal, the screening theory contends that schooling functions as a filter by means of which employers can make up for their lack of information about job-candidates' productivity attributes, then sort and rank them in virtue of the productivity levels reflected by their educational level.

The signaling theory, on the other hand, stipulates that laborers initiate the act of indicating (i.e. signaling) to employers and informing them about their productivity merits. It is to note as such that the game-theoretic dimension is at the core of this distinction between the two versions of the sorting model: which party (agent or player: employee or employer) in the labor market imparts relevant information about laborers' innate productivity and natural abilities first.

1.5. Game Theory

Bridging the abstractness between theory and real world practice, game theory manifests itself in the behaviors of people and how they make decisions and take choices in social daily life as well as in work or industry life situations, them being based on aspects of power, influence and conflict. It is useful for especially the kinds of areas involving competition in the market sense, including economic-associated fields to which decision making pertains: economics of language is just a very good case in point. While game theoretic studies in areas of economics trace as far back in time as the nineteenth century (e.g. Cournot, 1838; Bertrand, 1883; Edgeworth, 1897), game theory –as a tool for making decisions in a strategic form– received remarkable consideration and condensed attention during the 1970s and that was both in theory and practice (Lim, 1999).

Widely diversified in terms of application in the field of economics and its extended areas, game theory, as outlined by Tesfatision (2006), is especially used in oligopolies, among others. A market monopolized by a group of firms that together hold sway over a big market share and are alert to the interdependent effects of their individual strategic decisions each on their returns and market shares is a typical definition of the so-called oligopoly (Lim, 1999). Defined as such, oligopoly transpires simple in structure; the reason why oligopolistic decision making is easy to manipulate using game theory, by especially taking advantage of the dynamic oligopoly model that entails recurrent encounters between firms and clients under matching contingencies. Other applications of the theory include bargaining, auctions, externalities, public goods, as well as general and market equilibriums.

While space runs short to account for all of the aforementioned in details here, suffice it to mention that all of these models, save oligopoly model in a way, apply to

firms leaders' simultaneous decision making games (i.e. when these decision makers make their own decisions unaware of the decision(s) of their opponents) as well as to their sequential decision making games (i.e. when they are aware of the decisions of their rivals beforehand).

1.5.1 The Notional Framework of Game-theory

Defined as a systematic study of decision-making processes where choices made by some players potentially inform other players' interests (Turocy & von Stengel, 2001), game theory has been thoroughly used in the area of economics from the perspective of the strategic interactions taking place among economic players (Lim, 1999). While game theory relates to competitive scenarios alongside cooperative, the problematic issues in the process are termed 'games' and the agents in the game are labeled 'players'; the latter term signifies the individuals, groups, organisations, and/or states, etc. making some decision(s). While a game entails two players at least, an only one-player game is known as 'decision problem' (Turocy & von Stengel, 2001); Game represents strategic interactions assumed by players in terms of potential constrained actions and desired interests (Osborne, 2002).

Proving its significance for several social sciences fields as from the late forties (Lim, 1999), game theory finds its employment within many fields; especially, among others, in economics and political sciences (Camerer et al., 2003). It is the claim of Turocy and von Stengel (2001) that game theory renders it possible to derive on methodological formulation and structuring as well as methodical analysis and comprehension of strategic scenarios. The authors are of the view that game theory considers agents (individuals, groups, organizations, nations, and the like) as players in a game which is set in accordance with their preferences, knowledge and the strategic

actions at their disposal; and strives to work out the ties of impact these latter have on the ultimate pay-offs. Game theory, as it stands, applies as and when there is interdependency between the actions of agents.

1.5.2 Assumptions, Beliefs and Dimensions of Game Theory

Osborne and Rubinstein (1994) dissected game theory into two types: Cooperative game theory, which highlights the rational players' behaviors when they cooperate, and Non-cooperative game theory, whose focus is on competitive scenarios. Which type would a game at play be, notes Lim (1999), is determined by means of the intercommunicability between players. The former sheds light on providing descriptions of cooperative groups formation and its positive outcomes occurring to the players of those groups in a game (like, for instance, building up and reinforcing players position, and maximizing payoffs that meet both private and collective rationality) (Lim, 1999). The latter, however, is in the main concentrated, according to Lim (1999) as well as Turocy and von Stengel (2001), on the emergent strategic choices following from pursuit of individual self-interest considering the strategies the individual players in the competition adopt for private utility maximization. Presupposed to be acting on rationality basis, players in game theory terms, as such, strive to make the most of a state of affairs –towards obtaining the most favorable outcome possible– depending on the choices they make in view of their rivals' conduct.

Game theory is based on the assumption that decision-makers, while cognizant of the alternatives beforehand and hence optimize them, are characterized by rationality and strategic reasoning; the reason why they act correspondingly, out of deliberate choice (Osborne & Rubinstein, 1994). It assumes that players, first, constitute beliefs on account of assumptions of what others may do, then react accordingly by picking out the best response alternatives based on the set of beliefs previously formed, and then balance the

best responses and beliefs to match (Henrich et al., 2001).

Human nature indicates that not all individuals act the same way under different circumstances. People differ variously in their reactions and behaviors depending on the situation, some are sensible despite conditions whereas others are less rational. As such, it should be expected that some players could breach (any of) the aforementioned game-theoretic assumptions as they are found to act more or less irrationally in contingencies (Henrich et al., 2001).

Nash equilibrium rests on the amalgamation of distinct strategies chosen by players. Thought of as a keynote game-theoretic ideational solution concept (Myerson, 1999), Nash equilibrium (also known as equilibrium point) considers the actions players would assume accordingly in a strategic game and proclaims such a game to comprise two or several competing players who are supposed to be aware of each other's equilibrium strategies, with no gains for the party opting merely for a single-sided strategy change (Osborne, 2002). Players normally choose their actions on the basis of the beliefs they hold about their counterparts.

However, de Bruin (2009) contends that to realize with precision what choice their counterparts will make, players should not act much on the assumption that all players in a game are rational. After all, there could be more than just a single Nash equilibrium at stake in a game but some of which may prove short of reliability, and hence be naturally disqualified while partaking no effect in the process whatsoever, considering the expected outcome (Myerson, 1999).

Bearing in mind that agents/players in a game act on a set of assumed probabilities to derive on their random choices of the set of strategies, it is to note, according to Turocy and von Stengel (2001), that while a game is generally thought to be having a Nash equilibrium

wherein individual players are put to it to subscribe for either of the strategies at hand, the case does not always hold as such regarding a strategic game. This in turn presupposes adoption of more than merely a sole strategy on the part of players, a simultaneous combination of two or more strategies would justifiably then be in action. And this is known as Mixed Strategies, which by definition means a distribution of the probabilities available in the light of the set of actions at play. In his 1991 publication, Rubinstein takes a 'mixed strategy' for a belief players in a game hold vis-à-vis actions of a particular player in the game.

1.5.3. Game-theory as Strategy and Tactic

If some players' simultaneous choice of strategies without any previously assumed knowledge of the other players' choices represents a 'strategic game', them having otherwise been informed or having accumulated knowledge in advance about their counterparts' actions over time to sustain their own actions is a representation of an 'extensive game' (Turocy & von Stengel, 2001). In the former game form (i.e. strategic games) players make simultaneous/synchronized movements, and circumstances are inflexible seeing that players cannot rethink their choices as the game makes progress; it thwarts observation of the game as players decide on their determined action plan each at the beginning of the game and that persists across. Notwithstanding, the latter model (extensive games) stipulates that only one player makes a movement at a time while the opponent is expected to react accordingly and proceed on with acceptance or rejection, and so it permits observation of the game wherein players can think through their choices all along and throughout the game; this makes it open to an unrestricted number of possibilities. Underlain by assumption of information knowledge on the part of players about their game rivals' previous choices, these extensive games are as such termed

'extensive games with perfect information'.

Gipin and Sandholm (2007) argue that players' payoffs resulting from their actions in two-player or multi-player games are all in reciprocity of effects. When a player cannot be fully aware of the information about the other players' actions and hence the game becomes less observable, it is no more extensive games with perfect information that is at play. Rather, it is the case of extensive games with imperfect information. Extensive games with imperfect information do not mean players to have complete knowledge of their opponents' earlier actions (Osborne, 2002); and so upon making the next move, the player taking the turn has limited access to the choices made by the other player. But while the optimal strategy(ies) which individual players may adopt can link to the other players in the game, the subsequent decisions in these games can only be best made if reference is due to the preceding choices (Gipin & Sandholm, 2007).

1.5.4 Linguistic and Communication Issues Perceived through Game Theory

In previous research of linguistic-based studies, the main interest was to study which languages be selected among the ones present in the setting. However, the new literature, being absorbed more with how thoughts are communicated in some language, comparatively seems to be running along the initial lines drawn by Marshack (1965). Linguistic subjects like grammar, semantics and pragmatics have traditionally been typical linguistics issues, but these are taken up by Rubinstein (1996, 2000) to be viewed under the framework of game-theoretical models to study the mechanisms of language, its character and evolution.

Game-theoretically speaking, Rubinstein (2000) states that

> Economic theory is an attempt to explain regularities in human interaction and the most fundamental non-physical regularity in human interaction is natural language.

> Economic theory carefully analyses the design of social systems; language is, in part, a mechanism of communication. Economics attempts to explain social institutions as regularities deriving from the optimization of certain functions; this may be applicable to language as well.... Economic agents are human beings for whom language is a central tool in the process of making decisions and forming judgements. (p. 4)

Furthermore, Rubinstein (2000) spoke of words and their designated meanings. For him, language as a social phenomenon is exposed to gradual development and evolution anyway, under the pressure of the progressively rising needs of the community that it is required to serve, through the improvement of its functioning as dictate the circumstances; subsequently emerges a fine equilibrium and information becomes communicable, functional, and exploitable. Put another way, language development optimization procedure yields 'evolution equilibrium' which in turn specifies word meanings. The different denotations –even connotations– of terms (words and utterances), in the framework of game theory, can be seen as a balance upshot of a game involving users of some language.

1.5.5 Language Acquisition as "Agent" in the Game-theory Model

Economically speaking, the decision of whether or not learning another language is worthwhile usually pertains to the cost-effectiveness of so doing. We can hardly think of any situation where a second or foreign language is learned just for the sake of learning it for itself without anticipated positive outcomes. Game-theoretically, the worth of learning one language or another is determined with reference to the number of its respective users; the bigger the number of the target language speakers, the more likely the language would prove attractive for learning. This is simply because when learning a language, individuals

consider the biggest multitude of chances possible to communicate with the largest would-be number of people. In the game theory, this is termed ‘network externalities’. If to apply the perspective of network externalities to workplaces, it is safe to claim that employees will opt for acquiring the language(s) that offer(s) bigger opportunities to communicate with larger numbers of workforce members.

Although not as desirably comprehensive and less as effectively inclusive as they are generally thought of, especially when put under the test for some extreme situations, languages communicative value models (the game theoretic approach which considers languages to be alternative tools of communication is a good case in point) serve a good deal for comprehending the ties brining economic returns side by side linguistic competencies. Communicative-value-grounded models of language, for that matter, are not unerring for they cannot pass the test of application to settings where minority language speakers are comfortable with the majority language; leading to the claim that learning the minority language has to do with rationales transcending the mere communicative value to include, among others, economic, but also essentially political and cultural, drives. To illustrate, the case of the Basque country in Spain, where Basque is attributed status of officiality and is being increasingly reinforced and people are encouraged to learn this language to get better job posts and earn better salaries, is a good example.

1.6. Private and Social Monetary Outcomes to Education

The effects of educational attainment on economic status lie at the core of the human capital model discussed earlier. The monetary outcomes of education primarily signify the material benefits that individuals may earn. According to Grin (2003), market values are the ones which can be traced back by prices or similar price-indicators. It is generally

presumed that educational attainments are likely to reduce unemployment and at the same time function as a significant pointer to efficient workforce. This is in turn thought to decrease the liability of external costs in communities, where for instance dropouts may be an additional charge on the responsible systems to take care of.

Research on the correlation of schooling and wages are increasingly attesting the positive relationships they have. For example, it is found that each year of schooling informs an approximate level of an augmentation in the economic market by an average of 5% (OECD, 2014). Similarly, one year of education contributes to increase the average levels of salary premiums by about 6.5% among workers (Mariana, 2015). In addition, some researchers suggest that attending to college for a few years is so apt to yield market returns to people even if they left college without a degree (Kane & Rouse, 1995). Of the qualities that monetary benefits actors gain, they include better wage premiums, a broader list of work options to select, more appropriate work preferences, having access to cost-effective facilities (such as children insurance granted due to parental educational status), as well as better opportunities to access information and its availability (Grin, 2008). Of course, market returns can be of effects on the personal level just as may they be external such as the ones just indicated that children and spouse would benefit.

Schooling is well established in previous empirical studies that it impacts such economic variable as income and wage premiums. The effects are both private and public benefits. Of the useful categorizations to market values of education is one recited by Mariana (2015, p. 366) distinguishing private from socioeconomic levels. At the private level, a number of direct rewarding revenues can accrue to individuals.

First, employability in work market, where according to the filter of human capital model, employers resort to more educationally equipped workforce that is thought to be

efficient and productive by yielding more profits compared to costs. Second, by the same token, educational attainment is thought to increase income because in the workplace, practical functionality and skill that reflect past educational training will contribute to competition in labor market that workers are selected and kept especially by offering external premiums. Third, as already suggested, that research affirms extra benefits to each completed year of education is an indicator that lowers unemployment rate. Obviously, better schooling renders individuals more effective so that they become more desired for being selected at work employability. Fourth, it is also important to note that education aids in providing chances for labor market by enhanced strategies and suggested alternatives, which in turn encourage employers to reward their respective working stuff to produce more, allowing for more flexibility and encouraging innovative ideas. One more benefit to past academic tuition widens mobility scopes so that enriching the workforce market and raising efficiency.

On the other hand, Mariana offered a list of profits that are social and public. Higher educational levels a very likely antecedent to higher productivity, greater social competitiveness in labor market, better quality of human factor and of the products and the services. In addition, an increase in education allows for higher net income fees and higher budget collections, as well as lowering dependence on financial support, opening broader opportunities for socioeconomical luxury.

Actually, several outcomes may also occur to be in intermediate positions where their distinction is difficult to which category they are classified. The approach adopted in general is one that puts two distinct varieties of advantages to educational attainment, and the one significant characteristic to discern them is weighing them on the scale of “price” quality (Grin, 2003). However, even in this case, some positive effects to education can be vaguely stubborn to classify in either category.

1.7. Private and Social Non-monetary Outcomes to Education

Educational attainments are basically treasured as assets of value. The skills accumulated over years are not, however, without costs. The investment in education of individuals requires two basic valuable resources: time and monetary expenditure. Of course, such costs are consciously placed with expectations of rewards in the future. Nonetheless, it is important to point out that not all invested resources will have guaranteed returns for individuals, because, for instance, dropouts may not make it to the initially underlined objectives, and would fail to pursue the educational pathway simply due to a various reasons, major of which would be intellectual unpreparedness or lack of aptitude in a certain direction, let alone funds for supporting one's own academic requirements. With that said, graduates who successfully complete their educational career will enjoy rewarding outcomes in two main respects: market and non-market. A market value is one squarely reflected in prices, whereas non-market value is that which cannot be measured by materialistic price (Grin, 2003).

The non-market revenues to education are the ones that a person earns in several ways during and after their academic cycles have been accomplished before or after they ultimately are assigned a work position. The non-monetary attainments will often include a wide range of benefits. Health, social comfortability and status, prestigious privileges are among many such benefits (McMahon & Oketch, 2013). In regard to non-wage utilities of investment in education, Grossman (2006, p. 579) points out that in order to assess the values it yields –specifically related to health matters– it is important to consider such questions as "Are more educated people healthier? Are they less likely to smoke cigarettes, more likely to quit smoking if they do smoke, and less likely to be obese?"

Obviously, individuals undertaking an academic program with satisfying results will enjoy better psychological aspects than their peers who failed to complete their tuition. The latter are apt to experience imbalanced life pursuits leading them to be subject to negative social phenomena which ultimately may cause them to indulge in immoral practices such as becoming drug dealers or engage in delinquent misbehavior. On the contrary, learners that are well supported by families and encouraged to be good achievers will be likely to be distinct as efficient social members in the future, resulting in them having a well-constructed mindset which will be reflected in their social healthy well-being, let alone socio-economic status. For that reason, education is conceived of to directly contribute to health conditions, and these factors grouped together are two basic components of overall capital in economic theory, respectively as knowledge capital and health capital (Grossman, 2006**)** which are the main parts of the overall sum of human capital. Vila (2000) argued that educational aspects proportionately correspond to persons' health benefits, in that it opens an avenue to be equipped with appropriate knowledge in terms of medical information and care savvy, and by consequence there are more efficient personal habits affecting one's outlook to the composite of perceptions about life.

Further, the self-esteem that people gain through education is prone to make them consider best life chances and avoid detriments impacting life expectancy factors, and thus a make-up of good practices of enhanced nutrition habits, medical regular check-ups, work-outs, avoidance of smoking, opting for healthier living conditions and environment will definitely contribute to better physical and mental well-being of individuals. Additional non-market advantages for educated members is the employers perception of them as requiring upgraded working conditions, and the high levels of confidence graduates gain from academic settings with more self-realization and intellectual

competency are likely to make them build safe rapport in the work environment, as well as commanding respect in the work community as compared to whom are deprived of schooling or a good deal of educational formation (Mariana, 2015).

The knowledge obtained and retained firmly as part of intellectual composites is valuable as introduced thus far. The valuable aspects of such knowledge can be of private and social benefits (Grin, 2003). The non-market revenues of education can be private, for example, in terms of health benefits as discussed above, or be public as those sectors of health care, the ensuing democratic regimes and liberalism, and civic stability in terms of political acknowledgement to human rights and welfare (Mariana, 2015). If the non-market trait of education is applied to language economically speaking, it is such that an actor who knows a given language will enjoy access to different facilities pertinent to the linguistic community that others may not be enabled to have access to. Being able to speak a specific language will grant the opportunity for its users to mingle with the community and be permitted to be acculturated (Grin, 2003).

Wolfe and Haveman (2002) argue that, under some conditions, non-market revenues of education have the same value as market revenues; the effects that non-wage benefits bring about become interestingly useful in assessing the level of investment in schooling. Research in economics of education attests that the various stages of schooling are relevant to age coefficients. For example, investing in the primary level of children education by both government funding and parental financial support will not be rewarding to members at least in the period extending between 6 to 13 years of age. In contrast, graduates of tertiary levels will be expected to have returns of their past educational attainment, be it monetary or non-monetary, and the returns may be personal, extended to family including future generations (Walter & McMahon, 2018).

The intra-family benefits of education are treated as private outcomes, some of which are referred to earlier, including spillover effects of health issues of the spouse and children, the quality of life in general, the future academic directions for children and so on. For Wolfe and Haveman (2002), such intra-family externalities are considered social since they are not focused only on the individual's own perimeter. The writers illustrate one case of the intra-family non-market returns to education by considering how the socioeconomic status of a spouse may affect their partner and shape their preferences towards ascribing to a better work position or a more promoted quality of work-related options. Indeed, the "information, advice, and assistance in skill acquisition and coping with challenges provided by a more-educated spouse has a larger effect on the other spouse's earnings than the contributions of this sort made by a less-educated spouse." (Wolfe & Haveman, 2002, p. 110)

According to Mariana (2015, p. 366), non-market-based returns of education are private when they are accounted entirely to the individual level of the person, and social when they have external effects benefiting the outside circle including the immediate direct family kinship. Based on that, the author classifies a number of consequences to investment in education. As to the private outcomes, they include better and/or more effective consumption ability, better health for one's own and their family, better conciliation of the occupational activity with the family life; better education for children; responsible participation to the community life, active citizenship, in addition to creating civilized human relations. On the other hand, as regards the social aspect it includes contribution to reducing violence and crime rate in general, of young people in particular; reducing infectious diseases; lower fertility, especially at the categories of population with a superior level of education, greater social inclusion; strengthening economic, social and territorial cohesion; and participation in political activities, including voting.

Similarly, earlier on, Wolfe and Haveman (2002, p. 98-99) categorized different correlations that emerge out of the non-market educational returns. They listed the following as the primary relevant relationships:

- a likely positive link between one's own schooling and the schooling received by one's children;
- a likely positive association between one's own schooling and the health status of one's family members;
- a likely positive relationship between one's own education and one's own health status;
- a likely positive relationship between one's own education and the efficiency of choices made, such as consumer choices (the efficiency of which contributes to a well-being similar to the contribution of money income);
- a relationship between one's own schooling and fertility choices (for example, decisions of one's female teenage children regarding nonmarital childbearing); and
- a relationship between schooling in one's neighborhood and youth decisions regarding their level of schooling, nonmarital childbearing, and participation in criminal activities.

Dee (2004) suggested that of the potential effects that education has as a non-market marker on individuals is its relevant civic consequences. It is thought that schooling positively correlates to civic comportments in that the social members with better educational background are so likely to participate in civic interests with high levels of awareness towards critical perceptions of the norms embedded in their community, be it social, economic or political. Further, an increase in educational levels is apt to lead citizens to be effective benevolent participants in non-profit organizations and ready to

accept donations for solidarity (Wolfe & Haveman, 2002). Volunteering contributes to the increase of social non-market benefits especially because better-educated persons engage with their physical and mental work (Vaillancourt, 1994), and at the same time by investing part of their most scarce resource that is time in benevolence activity (Freeman, 1997).

In that way, Dee (2004) argues that education will result into promoting civic action of the participant individuals in two ways. First, an educated individual develops the spirit of responsibility by deliberately engaging in for-free tasks that will reduce the costs for given facilities or institutions that are in charge of activities relating to aiding the social community members. In fact, better cognitive abilities, which are often promoted by an augmentation in the years of education, will often form individuals with distinguishable skill in approaching problems and proficiency of recognizing the ways to proceed in one way rather than another, with the purpose to avoid probable complications. They may effectively cope with technical changes such those generated by changes in embedding technological and artificial intelligence to serve society. Second, education helps spreading equality by especially enlightening mass awareness towards freedom and democratic participation to promote civic life, by means of giving people room to support each other through mutual aid that one complements the other.

1.8. Conclusion

Whether education correlates with labor market income of individuals has been proven positive recurrently by empirical research across the years. Economists view this strong relationship under a pair of major models: Human capital, and Sorting. To the extent that both human capital and screening theories are built on the posit that education positively affects earnings, the blurred distinctions between these two theories would persist while

based on performing estimation of earnings functions tests. Education economics not only does it emphasize that schooling interrelates with market revenues of individuals' incomes, but also confirms a more rewarding aspect that is reflected in non-monetary values. It is now established that future chances of persons firmly hinge on past education experiences. Further, the non-monetary benefits of education are surprisingly found to extend beyond the private level to an external level, of which outcomes can be tracked down on the level of one's own family. A parent with well-achieved educational status will have his offspring take advantage utilities relating for example to health facilities such as insurance, tickets of travel, duration of stay in a receiving country in which a parent may obtain a work contract, and so on. Put simple, education has both wage revenues and non-wage advantageous effects to both the individual person and to his immediate kinship of sons and spouse.

Chapter Two

Languages and Economics

2.1. Introduction

The interest in language within business environments has been such an intriguing area of investigation for several researchers for over half a century. The swift growth of industry towards a globalized trade contributed to the appearance of more interdisciplinary research fields. From the significance of the relation linking language and economic contexts emerged “Economics of Language” as a new area of investigation. Because language is deep-seated within almost every discipline in human and social sciences, it makes perfect sense for the present exploration to ponder how relevant is language to economy. This chapter covers mainly, among other subjects, the bearings of language to economics and issues related to the economics of language. This chapter also launches on setting up a contextualized theoretical framework, as well as conceptual views and assumptions fundamental to the theme and to the study.

2.2. Setting the Floor

Communication has progressively increased in importance among people, most especially in the context of a globalized economy. Communication in a globalized economy necessitates an enormous number of intercommunicators using a comprehensibly shared language as a tool for interaction. There has recently been great interest in paying tribute to the correlation between business and linguistic matters. Even more interestingly, much attention has been devoted to discerning the ways language and economics interweave. In effect, the current trends towards combining fields together allowed a research line in the realm of interdisciplinarity to gradually emerge. The economics of language was still in the cradle for several decades since its conception in the mid-sixties and has only recently surfaced as a steady subject of study.

Chomsky's first publication of "Syntactic Structures" (1957) soon sparked a considerably large amount of questions related mainly to the connection between language and other areas, shortly afterwards and forwards. Examples of these instances would be sociolinguistics, sometimes taken synonymously with the sociology of language, the interest of which is linking language to society; psycholinguistics, connecting language to psychology; neurolinguistics, associating language with the nerve systems and the mind; to name a few. The year 1965 can be deemed the starting point towards a combined field linking together economic matters to linguistic issues. In this year a paper was published by Jacob Marschak (1965) entitled "The Economics of Language". This paper was such a landmark along the way towards establishing a field referred to generally as "Economics of Language".

Researchers generally consider Marschak to be the founder of the discipline (see e.g. Coulmas, 1992; Grin, 1996, 1999). In "The Economics of Language", Marschak was concerned with such questions as: Which among the communication systems are adequate for some situation, end or aim? For what reason is any contemporary or dead language the same it is or was? What is the rationale behind a range of features which happen to prevail for a particular span of time? It is along these lines, taking up such questions weaved with an economic point of view, that language is regarded as an interesting subject matter of pursuit.

Marschak's notional model soon attracted researchers' interest due to the captivating relationships it identified between language and economics. Rapidly enough, Marschak's ideas achieved quite a reputation and a scholarly consideration, though the contributions that followed along the subsequent few years fell into a different scope and tracked the subject from divergent perspectives. The diverse reflections put forward then

drew mainly on the scrutiny of language policy in sovereign nations characterized by plurilingualism.

The attention was poured on interlanguage connections rather than on intralanguage associations; i.e., the subsequent research was concerned more with the links binding languages rather than with communication taking effect in some language. In this way, the area started to expand progressively and considerably ever since. A body of relatively respectable literature on the correlation between verbal communication tools and economic factors gained an incomparable enquiry of a growing momentum.

Chief among the researchers who inspected the relationship between linguistic matters and economic affairs are the following: Breton and Mieszkowski (1977); Boulet (1980); Carliner (1981); Grenier and Vaillancourt (1983); Vaillancourt (1983, 1996); Coulmas (1992); Henderson et al. (1993); Grin (1990, 1992, 1994, 1995, 1996a, 1996b, 1996c, 1999a, 1999b, 2002, 2003b, 2006, 2008, 2009); Grin and Vaillancourt (1997); Breton (1998); Rubinstein (2000); Bleakley and Chin (2004); Aldashev et al. (2009); Fidrmuc and Fidrmuc (2009); Grin et al. (2010, 2011); Gao and Smyth (2011); Jane and Heiko (2012). These surveys have been of ample contributive substance in putting together a near-holistic –yet not a full-fledged– version of our comprehension of the linguistic and economic variables correlation.

The early beginnings of the 21st century marked a watershed moment in the history of “Economics of Language”. During these early years, and as opposed to the preceding reviews, language was approached from a distinct perspective, likely of relative intimacy to the early reflections of Marschak. The pioneering contributions along these lines are put forward by a number of economists, making allowance for game theory (see Rubinstein & Glazer, 2001, 2004, 2006; Rubinstein, 2000), whose ideas brought about a range of new

aspects comparatively similar to Marschak's. Around twenty years ago, Rubinstein (2000) drew more on the interaction misunderstandings and contact inconveniencies dimension of communication rearing amid economic environments, business professionals, and management practitioners in his publication entitled "Economics and Language".

Arranging for economic deliberations on language-associated issues to allow the relevance of economic consideration to the exploration of language to crystallize, Rubinstein (2000) and his partisans aimed at sparking out a new and more pertinent way of addressing linguistic-economic matters. They set off for this via the appliance of a new approach to language affairs as a novel tendency in dealing with language from an economic lens, by regarding language not merely as a variable, but rather more of a function in its own right.

2.3. Economics of Language: A Fragmentary Discipline

Researchers interested in the economic approach to language generally date the origins of language economics as a field back to the mid-1960s on the traces of a paper titled "Economics of language" published by Marschak in 1965. Except for the countably few studies (e.g. McClosky, 1983) which endeavored to linguistically and rhetorically deal with the mode of arguments of an economic character and apart from pragmatics, there was hardly any reference to economic tenets in the linguistics literature until a couple of years ago.

Defined by Grin (1999, p. 13) as "the paradigm of mainstream theoretical economics and […] the concepts and tools of economics in the study of relationships featuring linguistic […] variables; it focuses principally, but not exclusively, on those relationships in which economic variables also play a part", economics of language is a quadruple research domain. It is concerned with language and earnings, language and

economic performances, language dynamics and language change, as well as language policy economics (Grin, 2002).

Because some allowances have in the recent years been directed to researching the interplay between language and economics, the domain of Economics of Language has developed significantly and has taken commendable strides towards recognition compared to the previous decades. Nonetheless, until not too long ago, its framework remained quite unrefined. The methodologies used and the approaches adopted do not yet qualify the field for autonomy: "What we may call the economic approach to language is not, as yet, constituted of many well-defined propositions.[…] If an economics of health, of family, or of culture exists, there is still no field of language economics" (Breton, 1998, p. 6-7). Researchers were blinded by generalities as opposed to particularities of the field. Accordingly, many years of further research were required in order to grow the economics of languages to maturity and make it stand for itself.

Additionally, the field witnessed several ups and downs, and this led to terminological confusion. As yet, there is no clear-cut answer to the question of what made the field so disjointed, and whether these relatively different reflections and contributions under a range of nominations might be held responsible for the disjointedness? In the following sections, we make an effort to account for the disparate terminologies of the study of the language matters in relation to economic factors.

Strikingly, the names attributed to this discipline essentially retain the words "language" and "economics" to their base, with the addition or deletion of some prepositions "of/and", or inversion in their order (by either "economics" precedes "language" while phrasing the title, or the other way around). In addition to "Economics

of Language" and "Language Economics", "Economics and Language" emerged as yet another naming phrase for the discipline.

The term "Economics and Language" was first used by Henderson et al. (1993) as a title for their edited book comprising their collected essays; only to be used again seven years later by Rubinstein (2000), but with different and original orientations. Early in the nineties, exactly in 1993, Henderson and his co-authors used the term to title their publication, the content of which has nothing to do with the cover page, i.e. despite the inclusion of the term "language" in the title of their book, the authors did not, even in the slightest manner, reflect on language in the way that concerns our study. Again, Rubinstein (2000) used the title "Economics and Language" to refer to his publication. Apparently, he made use of this label for his unprecedented genuine insights that do not pertain only to purely linguistic matters of discussions, but also to the interaction between language and economics.

Isphording (2013) referred to the field as "Econolinguistics", which he defines in the same way as the above discussed terms. Four years later, Hogan-Brun (2017) preferred to use the term "Linguanomics", in bold big font capitals, to title her book ("LINGUANOMICS: What is the Market Potential of Multilingualism") in which she missed out providing any clear definition or explanation of what this term really means; and whether it is an established label or a newly coined concept. In this five chapters book, Hogan-Brun investigates the market value of language diversity across several industries and argues that multilingualism is a commodity for exchange in today's globalized business world. She maintains that multiple language skills are assets with socio-economic returns, including enhancing individual employability and boosting productivity.

2.4. The Subject of Language Economics

The primary purpose of any language is communication. Human language is a collective practice, a societal fact, and social phenomenon. As is the case with virtually every discipline, distinction in study must be made between theory and practice in the consideration of language economics. Theoretically speaking, economics of language is most concerned with the study of three basic components. The first component addresses specifically the technical aspects of the field regarding its creation, by tracking the beginnings, evolution, and shift of language using economic theory. The second component concerns itself with the functional aspects of language in terms of usage and the ensuing benefits such usage may bring in the various economic activities. The third component investigates the incorporation of linguistic and economic approaches, methods, and theories. In terms of application, language economics aspires to put into practice theoretical implications and apply them to socioeconomic realities, such language policy and language planning.

Practically, economics of language, according to Grin (1996a, 2002, 2003), is made to assimilate a host of methods. These methods of analysis are: neo-classical economics (Grin, 1996a); comparative analysis, normative analysis, qualitative analysis, quantitative analysis, empirical analysis, and cost-benefit analysis (Grin, 2002, 2003). Qualitative and quantitative analyses notably involve the philosophical reflection of the research issues and the character and scale of economics of language as a discipline. Huang (2004) points out that economics methodology is threefold in nature; basic: the foundation of normative and empirical methods in economics; principled: economics research methods and system structure; technical: specification and management of economics methods. By matching Huang's categorization with Grin's methods of study in

economics it becomes apparent that qualitative and quantitative analyses belong to the first level of normative and empirical methods.

Examples to mention among others are: micro and macro, static and dynamic, deductive and inductive, evolutionary and historical analyses. These analyses fit in the principled level. The technical level comprises comparative and cost-effective analyses, such as psychological, case studies, equilibrium, mathematical, marginal, and game-theoretical methods. As no method is perfect, it is usually best to adopt a hybrid approach. An eclectic method or employment of as many methods as possible is virtually always the most suitable choice.

Worthy to point out, because language alone is so intricate an entity comprising a whole range of constituents (basically emotional and sentimental, religious and spiritual, cognitive and psychological, ethnological and cultural, especially social, political, and economic), it is important that economic theories and methods with their relevant explanatory essence should be cautiously thought of when applied to language phenomena, not least in connection to vague notions. To take an example, linguistic factors having to do with psychology and emotions are not supposed to be heavily placed under extensive study using a quantitative method, them being of a qualitative character.

Despite their perceived simplistic hypothetical statements and overcomplicated equational modelling, the available macroeconomic analyses of language as a tool for communication provide insights into language and translation. While a common language among members of a particular community/society promotes production-consumption opportunities, say Yi and John (1997), language assimilation scarcity in this regard remains a conundrum. The issue is, indeed, more complex than merely addressing it on the surface if the goal is set for further potential language assimilation to materialize; this

is because enduring production and consumption prospects should necessarily transpire in consequence. Again, the constituent socio-economic members will accordingly be found to act for a trump card in the process.

2.5. Language Faculty and Economic Status

Qualifications in some sort of manual or physical exercise can be seen as dexterity, competency and potential in an intellectual practice might be perceived as expertise, and proficiency in a language may be referred to as skill. Acquiring some language(s) constitutes an investment of economically profitable returns in human capital.

Human capital is crucially decisive in determining the degree of the factual exertion that language skills have on earnings differentials (e.g. Ricento, 2006; see also Grin et al., 2010). Polyglots are, as such, categorically more prestigious and rewardingly higher in status. Coulmas (1992) considers the bearings of polyglot skills, hence communicative competences, on economy, and the funds dedicated by lawmaking organizations seeking the foundation of a socio-economical society fed up by means of preceding theory emergent from multifaceted preconceptual framework. There is no free lunch for economic expenditure in embracing a strategy towards introducing some language(s) other than the homeland's, and unquestionably a one equally worthwhile besides other economic issues (Djite, 1990).

2.6. Language Skills Dynamicity and Economics

The different linguistic systems of the world share and serve one main function together: communication. Breton and Mieszkowski (1977) maintain that within business contexts, economic pressures and imperatives lead to a general conformity of attitudes to assume a shared linguistic system in view of a plurilingual atmosphere characterizing the milieu of

work whose actors come from different backgrounds. Economy professionals, in a manner of speaking, usually argue for the expenditure-reduction orthodoxy of achieving maximum communicative effectiveness with the lowest costs; this is usually typical of the use of a common tool of communication among the workforce, a lingua franca.

The fact of the matter is that there is big room of chance for the different sets of person-to-person communicators to opt for some language as a lingua franca. Yet, more than a single language can make their way through all together as lingua francae; though, as Breton (1998) points out, the number of lingua francae are predisposed to decrease over time due to such aspects as economic and industrial growth and expansion, political and cultural influence, social changes, power shifts, scientific progress, and technological advancement. In this way, one language or another typically comes out and prevails worldwide; to take a few examples: Latin in the ancient times, Arabic during the Islamic heydays, and English currently.

2.7. Language Skills at the Workplace and Immigrants Economic Status

Being an indispensable ingredient in individuals' daily life and as a cultural identity marker, language enables communication among the members of a particular group of people, broad or small, such as a community of employees in the workplace. Use of a lingua franca with teammates within a working context, as suggested by Grenier and Nadeau (2013), ensures better task execution outcomes.

The correlation of language skills with the pay of immigrants has been the subject of exploration for several studies. Low language skills of individuals hinder their productivity at the workplace (Bleakley & Chin, 2004) and that may become a chief cause for them to earn lower wages; this is especially so compared to those proficient in the workplace major language (Dustmann & Van Soest, 2002)

Antecedent studies, broadly, occur in a tripartite categorization. In that regard, three research strands can be distinguished: a) immigrant language skills and earnings; b) language proficiency and earnings; and c) educational achievement and earnings. Among the prominent figures who researched the first category, which relates to immigrants in the workplace contexts, are Mc-Manus et al. (1983), Tanier (1988), Kassoudji (1988), Chiswick (1991), Schultz (1998), Borjas (1999), and Friedberg (1993, 2000).

They generally report that immigrants are at a disadvantage in terms of earnings subsequent to their immediate arrival, the rate of which diminishes with every additional year as their gradual destination language skills betterment takes place over years of duration in the country of adaptation. While Chiswick and Miller (1995), Angrist and Lavy (1997), Dustmann and van Soest (2002) dominate the second set of studies, the third and last strand is pioneered by Chiswick and Miller (1995), Angrist and Lavy (1997), Dustmann and van Soest (2002).

Researchers generally postulate that a person's language skills advance by virtue of perceived economic benefits and exposure as well as the availability of favorable conditions. Research also evinces that immigrants' language fluency and efficiency correlate with many variables, namely: the linguistic distance of the mother language from the destination tongue, place of birth and geographic distance between the country of origin and the host country, age of immigration, marital status. In fact, differences are thus made due to a few variable incentives.

For example, getting married to a native speaker increases language proficiency. On the other hand, the obtained level of education has a strong effect in that logically the higher the educational attainment, the better. In addition, other factors such as the time, chosen location, and community characteristics play a fundamental role. The span of time

spent in the destination setting will contribute massively, because a longer period of residence improves language abilities better. In the same way, place of residence whether prior or subsequent to immigration and refugee status, as well as minority-linguistic concentration intensity, taking into account the frequency of use of the destination language, all have deep influence.

Several studies have been carried out investigating the role of language in economically-grounded areas like product markets (Hocevar, 1975), international trade and globalization (Breton, 1978; Hoon et al., 2011) as well as development (Arcand, 1996). At the same time, the increasing internationalization of economic and Research and Development activities, the growing relevance of foreign tourism, and the growing exposure to international trade and globalization have all stimulated the demand for foreign languages (Fidrmuc & Fidrmuc 2009, Fidrmuc 2011, Hoon et al. 2011).

Research on language skills in association with earnings abounds in the literature. Emigrants' earnings differentials have been the subject of many analytical studies, some of which came to consider language as a control variable, language being viewed in a poor light though. Game-theorists, like Selten and Pool (1991), Church and King (1993), Ginsburgh et al. (2007) as well as Gabszewicz et al. (2011), have had their word in foreign language theorization. They call attention to the quintessence of costs and benefits as well as network externalities within second language learning framework and how foreign language acquisition returns correlate to labor market pertinence.

The empirical studies on employment (labor market) wages and linguistic ability interlacement over roughly the last five decades can be classified into two categories: one focuses on the immigrants' earnings change by host country language acquisition

efficiency and the other concentrates on wage premium disparities between Anglophones and Francophones.

Juxtaposition of earnings amongst speakers of Spanish in the U.S. in view of concentration areas of residence allowed Bloom and Grenier (1992) to conclude that by virtue of a supply shift in the labor market for Hispanophones, condensed areas of immigrant Hispanics proved most rewarding and significantly higher in terms of earnings for Spanish speakers.

Boyd and Cao (2009) recognize the proven association between linguistic proficiency and earnings by compartmentalizing immigrants' linguistic proficiency into five components on the basis of their native and home languages (English, French, or some other tongue(s)) as well as capacity to communicate in either language. The authors consider that allowance for work location variables (work location being the mediator between linguistic competency and income) diminishes the loss of earnings among immigrants with low level official languages skills. In this way immigrants are urged to better their linguistic efficiency at their earliest convenience to decrease possible salary shortfalls. The better an immigrant's linguistic abilities, the higher their earnings.

2.8. Foreign Language Proficiency in the Prism of Mainstream Economics

While entertaining crisscrossing connections of interlacement, language skills and economic returns attracted the appreciation of various scholars. People come to develop language skills sequentially; acquisition of the mother tongue first along with one or more other language(s) in case of multilinguals, coupled with learning other language(s) considered foreign. It is an established fact, broadly speaking, that within multilingual societies, acquisition of the languages at stake yields significantly measurable economic gains. As a matter of fact, it has always been common knowledge among researchers that

economic well-being requires a lingua franca. The majority language, to their perception, is oftentimes a representative candidate for this lingua franca. However, our claim is one that parts ways with such claims as the aforementioned. We are particularly interested in how an assortment of languages, come out to cut their way through via compatibly active operation within the site.

Considering an economic-based approach to linguistic literature, and while economic returns occur to have much to do with the language skills distribution, a range of staple queries addressing the core gist of the investigation at hand emerged of merited consideration. Our comprehension of the language competences and economic profits interconnectedness is for the most part shaped by language's communicative-value-grounded models.

While of distinguishable bearing to shaping a person's personality and identity, language and culture entertain firm interconnections. This said, individuals are bound to grow habits and develop positive attitudes toward the tongue(s) they choose to use daily – to be transmitted eventually to their descendants– in consideration of both their emotional attachment as well as communicative benefits. When people develop positive attitudes about a language they make use of on a daily basis and generally mean to pass on to their offspring, we speak about 'linguistic preferences'. The concept of 'linguistic preferences' has been put to generic use in several texts. Examining the minority languages survival by virtue of his dynamic model, Wickstrôm (2005) holds that languages transmission between generations hinges on both the antecedents-descendants affectivity and the significance of language as a tool of communication.

Despite the fact that they address linguistic preferences, explicitly and implicitly, Grin's (1992) dynamic model for dealing with language use evolution, and Wickstrôm's

(2005) dynamic model as studying minority languages survival, remain limited and unfit for welfare analysis as they both restrict themselves to a reduced approach. In opposition to both Grin (1992), who does not highlight the evolutionary determinants of language skills, and Wickstrôm (2005), who misses out on spotlighting language preferences per se, Caminal (2010) as well as Iriberri and Uriarte (2012) lay emphasis on linguistic preferences together with linguistic skills. Assuming a fixed distribution of linguistic preferences and language skills, Caminal (2010) investigated the issue of purveying linguistic diversity in the commercial dealings of media products and cultural goods. Iriberri and Uriarte (2012), for that matter, studied the determinant contribution of the information structure to minority languages utilization in certain social exchanges.

Again, literature on the language-earnings relationship represents the accumulation of studies since about a decade over half a century, the concentration of a good many of which is on immigrants. Chief among the researchers engrossed in this direction of research are Chiswick (1991), Chiswick and Miller (1994, 1996, 2001, 2002), Dustmann and Van Soest (2001), Dustmann and Fabbri (2003), Carliner (1981), Grenier (1987), Veltman (1979), Grin (1997) as well as Grin and Sfreddo (1998).

Most empirical studies on the profits to foreign language mastery have been dedicated to the incentives (earnings, status, and so on) stimulating immigrants to attain proficiency in the host country's language. For immigrants, economic incentives (with the earnings variable to the fore), besides exposure and efficiency, represent the determinants of language proficiency or choice to become fluent enough in a particular tongue. Language proficiency relevance in economic performance has long interested researchers as coming at good grips with the destination language seemed to ensure higher economic returns for emigrants.

2.8.1. Economic Benefits of Foreign Language Skills

The link between language skills and economic revenues can be vindicated by virtue of a variety of rationales. To start with, while proficiency in the workplace dominant language(s) facilitates and improves communication efficiency among individuals at the site, it follows that proficiency would have potentially positive impacts on the output. Also, opportune language competencies should gain advantageously socio-economic rewarding professional functions at the workplace. Moreover, multilinguals, especially those who learned some foreign language(s), as opposed to monolinguals, are perceived as cognitively better-achieved individuals with more sophisticated mental capabilities, advanced cerebral abilities, and elaborated intellectual activities.

Research studies concerned with the prolific economic outcomes of official, national and local language skills among natives abound throughout the last two decades. Among the multilingual countries investigated by researchers (like Shapiro & Stelcner, 1997, and Albouy, 2008; Rendon, 2007; Di Paolo, 2011, and Di Paolo & Raymond, 2012; Drinkwater & OíLeary, 1997; Henley & Jones, 2005; Klein, 2003; Grin & Sfreddo, 1998, and Cattaneo & Winkelman, 2005), whose analyses consistently revealed there to be a positive labor market rewards for native language abilities, we find: Canada (especially, Quebec), Spain (specifically, Catalonia), Britain (particularly, Wales), Luxemburg, and Switzerland, to name but a few. Levinsohn (2007), Casale and Posel (2011), as well as Azam et al. (2013), whose studies were conducted respectively in South Africa and India (where English has the status of an official language), proved the substantial and labor market gains of proficiency in English. Toomet (2011)’s findings in Latvia and Estonia are at odds with the results reported about the aforementioned states; the author disproves any returns to local languages skills in the contexts of his research studies (i.e. Latvia and Estonia).

The interconnectedness between global economies and markets, notably as a direct result of the contagiously epidemic influences of globalization, has promoted international trade and transnational communication breeding an unprecedented labor market demand for multilingual proficiency as an essential determinant of productivity and workforce mobility. Some societies, hardly able to keep pace with foreign languages learning owing to the rapid change the world came to witness in light of globalization, says Ishpording (2013), seem to lag behind the required economic growth rate and movement of workers.

A great many economic lingual studies have tried to address the substantial benefits of language efficiency in the workplace of the miscellaneous economies of the world's nations. These studies demonstrate the rewarding labor market outcomes of being at grips with another language than the native tongue. There are in fact far too many authors of such papers to name, of whom Grin (2001), Dustmann and van Soest (2002), Toomet (2011), and Isphording (2013) are but a handful.

2.8.2. Effects of Foreign Language Deficiency on Indigenous Language Speakers

Again, apart from the two research strands concerned with the investigation of the remunerative outcomes of the immigrants' host country's language proficiency and the exploration of lucrative rewards of the natives' local language competency in the labor market, a third strand of research along comparable lines emerged. In this third strand, research studies on the economic returns of foreign language abilities among the native population have proliferated in the last two decades. Saiz and Zoido (2005) and Willams (2011), among others, reported the substantial economic wage premiums resulting from foreign language(s) knowledge, especially English, which manifest naturally in the western labor market. The same thing regarding the sizeable labor market returns of

proficiency in English as a foreign language is reported by Toomet (2011) in his study of Russian minority groups both in Estonia and Latvia.

While literature on the outcomes of multiple language skills on the individuals' cognitive and developmental abilities is in abundance in the case of immigrants, research on the advantages of speaking more than one language among the native population is in short supply. Foreign language teaching to secondary school learners is not without potential impacts on earnings in the U.S. (Altonji, 1995).

Using the 1976 Survey of Income and Education to draw on the role of proficiency in English in the Hispanic-Americans' earnings regulation, McManus et al. (1983) as well as Grenier (1984) lay meager earnings at the door of those with deficient English-language skills. Grenier (1984) and Bloom and Grenier (1993) show that, in the U.S., Anglophone whites gain significantly more than Hispanics whose knowledge in English is null or has nothing to do with efficiency; Grenier (1984) reports this earnings disparity at the rate of 33%. There is a consequential wage gap between linguistically proficient Canadian bilingual workers and immigrants in shortage of efficiency in Canada's official languages (Boyd and Cao, 2009).

2.9. Economics of Language and Translation

Likening the translation process to chess playing, Levý (1967) considers the act of translating as a sort decision-making process. Being the first to apply economic principles to translation studies, the author regards the process of translation as

> a series of a certain number of consecutive situations —moves, as in game— situations imposing on the translator the necessity of choosing among a certain (and very often exactly definable) number of alternatives […] every succeeding

> move is influenced by the knowledge of previous decisions and by the situation which resulted from them. (p. 38-39)

Taking transaction costs to be inclusive of information production, location, transfer, translation, and evaluation in his endeavour to study translation complications through an economic lense, Pym (1995, 2004) sought to elucidate the dimensions of translation activities through translation cost analysis. Viewing language learning and translation from an economic perspective, Steyaert and Janssens (1997) regard the former as a cultural production –rather than a technical skill– and the latter as a managerial, rather than a neutral, act.

Tamura (2001)'s conclusion that two assimilated societies conducting business in two different tongues economize on the totality in number of translators remains concretely impractical given its greatly mathematical and abstract nature. Although justifiably well-grounded and adequately satisfactory theoretically speaking, it is unable to stand up to any empirical test.

2.10. Language Competency, Literacy and Manufacturing

Language, proficiency in which is prime to the human capital portfolio of a person, has many lucrative functions both in quotidian life and in the labor market. Language proficiency alongside literacy intertwines closely with individuals' socioeconomic status and labor market outcomes. Qualified as the major medium of day-to-day effective interaction and a salient determinant factor of labor market returns, proficient use of language reasonably shapes the socio-economic well-being of individuals. It has now, in light of the discussion allowed for hitherto, turned out to be legitimately evident that language skills do exert their strong effect on workplace productivity.

When language skills are spoken of with reference to mother tongue abilities, it is literacy that comes into play; but when they are evoked in terms broader than the aforementioned, it is abilities in some foreign language(s) that are considered. Together, foreign language(s) skills and literacy, both as crucial coefficients of deemed credit in human capital, do indeed serve for investment of significantly measurable socio-economic pecuniary corollaries. The evidence from our close examination of the issue under consideration goes to show that foreign languages competency and literacy skills interweave inextricably with characteristic salary premiums.

The last few decades have witnessed remarkable improvement and substantiality of data availability on the language skills link to labor market outcomes. Literacy and foreign language skills have particularly been attributed special interest. Charette and Meng (1998) laid out that literacy and pay correlate positively in Canada, mistaking literacy for formal education though. In the case of the UK during the year of 1999, one in five people in Britain suffered serious problems of literacy which led to an income loss of approximately 15% (McIntosh & Vignoles, 2001).

Regarding the act of nurturing the average literacy levels for the many in preference to elevated literacy levels for the privileged few, substantiate Coulombe and Tremblay (2006), mass literacy turns out to impact positively the development of nations. Shedding light on how measures of educational policy can wield influence on economic growth, Hanushek and Woessmann (2008) evince the tight bond of literacy and economic success of both individuals–socio-economically speaking– and communities or broader societies (nations, etc.). Basic literacy skills in the Brazilian labor market house significantly impacts employment and incomes alike (de Baldini et al., 2011).

The decision to learn a foreign language is mostly economic and concerned with the perceived inherent rewards of doing so, of which access to wider potential communication partners the whole world over is at the fore. Sometimes, language learning takes effect by virtue of personal, non-market value drives. Notwithstanding, it is the market value urge that lies behind much of foreign language learning. In terms of rationality and utility maximization, before learning any language, individuals reflect on the costs and benefits of so doing. If the latter is prefigured at levels greater than the former, then the process is invigorated, safe in the knowledge that the learners would deem their new language acquisition journey worthwhile.

2.11. Conclusion

In this chapter we strived to make a good account for a historical review and theoretical background of language-related issues from an economic outlook, allowing for a broad and comprehensive description of the literature relating to the study field of economics of language by tracing its development and lines of thought. The inquiries have been first concerned with the interface between language and economic conditions, treating principally the interchangeable impacts between language skills and remuneration, then with the interplay between language and economy, exploring the development of languages economically. The chapter set out by demonstrating the pertinence of language-related matters in economic processes: language nativity and its labor market returns in terms of literacy; foreign language skill and its economic gains. The advantages of the field include its growing relevance in the globalized trade circumstances and the rich visionary perspectives it supplies both economists and linguists with. The disadvantages include the dearth of resources, research harmony, and synchronization. It is likely that future research will benefit from applying more a game-theoretical approach in the study

of the economics of language. Being a prerequisite for cross-national dealings and movement (trade, transactions, investment, immigration, etc.), intercultural communication has become an irresistible subject of research for several scholars, and has given rise to an unprecedented worldwide ever-growing demand for foreign language competency.

Chapter Three

Corporate Communication and Language Management

3.1. Introduction

There is no denial of the progressive deep impact and tremendous change which globalization continues to inflict on education, culture, politics, and the economy. In today's globalized world, multinational corporations represent an extension of the processes of business internationalization. Following multinationalization, the corporate sphere has increasingly been faced with a number of challenges regarding how to conduct business successfully. The management of business conduct relates to a vast array of questions, which may be characterized as broad to narrow, concrete to abstract, or long- to short-term. One pressing challenge within an organization of a global character is (effective) communication; more particularly, the resolution of the communicative aspect of the organization in the natural presence of a multitude of languages. Corporate language policies are common practice considering their practicable dimension. A corporate language policy simply serves for language(s) use regulation within some corporation. Regarding language diversity as adversity, broadly speaking, the standard practice among worldwide firms is to opt for a single corporate language, which in most cases is English. Illustrations for this abound in the bulk of literature. However, the multinational world as we know it today is one that calls upon the consideration of other tongues, say Arabic or Chinese, in addition to English.

3.2. Setting the Scene

While a great deal of economic studies took linguistic variables as irrelevant in economic practices, the experimental proof brought about by previous research investigations regarding the role of language in economic-related processes, says Nettle (2000), proves indecisive and vague. A question that lies at the heart of the investigation at hand goes: What manifestations of linguistic diversity should matter-of-factly be presumed as determinants of economic-

associated returns? The foremost aspiration in this line of questioning is to address a set of perfectly legitimate queries linking linguistic and economic variables. This is more specifically in reference to multinational businesses. We especially seek to deliberately stress multinationals' communication practices, both external and internal, that may comparatively thrive based on the languages in which these communication exercises come about. Although the essential end here is to set up the credibility as well as the significance of language-economic processes interlacement, we would not mind also taking the relatable operations such an interface calls into account as a point of reference. The biggest share of the language economics literature is interested in issues related to language policy and planning by aiming at developing economic methods and approaches and is concerned with language skills influences on earnings.

3.3. Host Country Language Proficiency Gains for Non-natives

The link of language proficiency to earnings has gained the attention of numerous researchers whose studies revealed there to be a close rapport between language knowledge and economic returns. This is especially the case for immigrants (e.g. Carliner, 1981; Tainer, 1988; Shapiro & Stelcner, 1997; Bleakley & Chin, 2004; Boyd & Cao, 2009; Chiswick & Miller, 2012). Indeed, language proficiency entertains significant impacts on the incomes of the foreign-born in several respects larger than the mere confines previous research restricts itself to (Dustmann & Van Soest, 2002).

Several parts of the world have been the sites of a large body of research studies conducted on the positive relationship of immigrants' knowledge of the host country's language to earnings. The following countries, with mention of the respective researchers who explored them, are but representative settings among yet several many others where such analyses have been carried out: Dustmann (1994), Dustmann and van Soest (2001) in Germany; Chiswick and Miller (1995) in Australia; Leslie and Lindley (2001), and

Dustmann and Fabbri (2003) in the UK; Bleakley and Chin (2004) in the U.S.; as well as Nadeau (2010) and Grenier and Nadeau (2013) in Canada.

A destination for huge numbers of immigrants, North America has the lion's share of the studies dealing with the bond between language and earnings. Europe also is a house for several studies mainly encouraged by the European Union as an entity comprising a diversity of member states. Deficient competency in a language that gains prevalence in a particular setting may lead to income differentials among individuals.

3.3.1. The Canadian Context

As a linguistically, culturally, and ethnically diversified country, Canada has for long been an attractive destination to large numbers of immigrants from the four corners of the world. However, immigration to Canada is not terms-free; eligible immigrants should demonstrate educational, linguistic and professional qualifications as well as adaptability readiness. In this way, the migrants, being sieved in terms of opportune skills suiting employment needs, are guaranteed integration within the Canadian labor market given their adroitness which is at the best of the country's development. Seeking a particular apposite work function, the newcomers make their decision in reference to salaries, linguistic needs of the employment post, and the workplace context.

Whether or not entertaining crisscrossing connections of interlacement, language skills and economic returns teased the appreciation of various scholars. While Hum and Simpson (1999) stressed the inconsequentiality of language in determining earnings differentials among minority groups in Canada, several many antecedent and subsequent research studies (e.g. Shapiro & Stelcner, 1997; Bleakley & Chin, 2004; Boyd & Cao, 2009) demonstrate the case to be in fact the other way around, specifically with respect to immigrants especially. Taking immigrants in Canada as their subject of study, Chiswick

and Miller (2003) display that wages increase with proficiency in the official languages (English and French), years of education, longer duration in the country, and pre-immigration work experience.

A considerable number of comparative studies searching earnings disparities among the foreign-born individuals have been carried out in Canada putting side by side the French-speaking Quebec and the English-speaking Canada. Whether or not a crucial variable influencing the wage gaps between speakers of different tongues in Canada, immigration status divides researchers into two opposite poles. Hum and Simpson (1999) put forward that it is a factor of substantial weight, whereas Carliner (1981) sets forth that work experience and immigration status are coefficients of insignificant worth.

Accounting for human capital and immigration factors as well as labor market and demographic variables, Shapiro and Stelcner (1997) spotlight that while Allophones occur to be divested of privilege in many respects (earnings, most especially, and work status, among others), proficiency in French is valued and guarantees privileged economic returns for Francophones in the Canadian French-speaking province of Quebec, with no loss of earnings for Anglophones who know French. In Canada, immigrants' fluency in English and French, say Chiswick and Miller (2003), complements education and experience as factors of human capital. Nadeau (2010) contends that the wage gap between Anglophones and Francophones in Canada is apparent; because of the large demand for English in the labor market during the last three decades of the previous century, the author proceeds, Francophones received lower wages compared to Anglophones outside Quebec, while Francophones were evidently at an advantage in the public sector within the province, French being in a position of requirement in the sector.

Veltman et al. (1979) pioneered the research about degrees of difference in wages between Canadian language groups by conducting studies which led them to conclude that the pro-Anglophone high earnings in Quebec is attributable to the widespread presence of Anglophone companies that opened up a window of opportunity to informal exchanges for Anglos. Studying the economic payoffs of the languages employed at the Canadian workplace, Christofides and Swidinsky (2008) show that, outside Quebec, the highest earnings are at the advantage of Canadian-born bilinguals using Canada's both official languages (with an extra Anglophone dose) while those employing only French receive the lowest wages. Even in Quebec where French is better remunerated and prevails over English, the authors observe, bilinguals availing themselves of English every so often receive better incomes than those exploiting only French. Data from the 2006 Canadian Census allowed Grenier and Nadeau (2013) to weigh up the outcomes of utilizing a second language at work in Montreal. Individuals whose mother tongue is not English reap considerable wage premiums by virtue of employing English as a second language at the workplace whereas those lacking knowledge of English suffer wage reductions.

Triggered by the Royal Commission on Bilingualism and Biculturalism's study results which reported the high disproportion between lack of English language proficiency and the salary increase in Montreal in the mid-sixties, a large body of consequent research papers (e.g. Veltman, 1979; Carliner, 1981; Grenier, 1987) vindicated the pro-Anglophones' wage rise at the expense of Francophones. Learning English for French-speaking Canadians proved more rewarding and incentivizing than learning French for Anglophone Canadians.

Accounting for official language skills and native language aptitudes, Meng (1987) sustains that by completing fourteen years of accumulative Canadian work experience, immigrants could gradually dispose of the wage gap with their Canadian-born

counterparts. Bonikowska et al. (2010) maintain that it is the basic cognitive skills differences that draw much of the wage gap reality between immigrant workers and native employees in Canada. The authors further sustain that while immigrants' numeracy and literacy skills can be under the effect of their respective native languages, ameliorating these skills could decrease this wage gap.

3.3.2. The American and Australian Contexts

While the favorable impact of fluency in English on earnings among immigrants was reported to be of a high coefficient by a number of studies conducted in different English-speaking regions, Trainer (1988) found that English language proficiency has positive effects on the foreign-born's earnings in the US, with differing impacts on ethnic groups. Those individuals who arrived to the United States as children or as young adults and those with longer duration of residence in the country obtain higher English language proficiency and finer economic outcomes (Bleakley & Chin, 2004).

Making good use of data from the 1980 and 1990 U.S. Census towards measuring how far immigrants' English language skills betterment would yield effects on diminishing earnings gap in comparison to native-born Americans, Carliner (1996) showed a rate of 6% - 18% wage gap reduction corresponding to English language proficiency enhancement.

In the US, Chiswick and Miller (1997) observed an average of 17% earnings differential in favor of immigrants demonstrating fluency in English as opposed to those lacking this skill. Carliner (1995) states that the majority of the foreign-born in the U.S. have good command of English with a probabilistic rate of 1.1 % English proficiency increase per each additional year of stay. For immigrants in the US, the desire to enhance proficiency in English is proportionate to the costs and benefits of doing so (Chiswick &

Miller, 1997, 1998). Several analyses in different countries report a sizeable wage premium gap between immigrants mastering the language of the host country and immigrants lacking knowledge of that language.

Again, the significantly positive effect of fluency in English on earnings among immigrants was reported to be of a high coefficient by Chiswick and Miller (1995) in their analysis of the Australian Population and Housing Census of 1981 and 1986. Considering immigrants' destination language proficiency as being determined by exposure, acquisition efficiency, and economic returns, Chiswick and Miller (1995) studied the impact of home language exploitation on immigrant workers' wages in Australia. They attributed exposure to the host country's language to more than a few determinants, exposing formal instruction as an agent of decisive bearings to language learning efficiency. Even as the ratio of language fluency disparity of university degree holders to dropouts stands at 12,5%, the authors report the rates of 2,5 % and 3,6% language efficiency increase per each extra year of schooling, the latter standing for the foreign-born whose mother tongue differs from the host country's. They arrived at the conclusion that while the individuals demonstrating destination language fluency before arrival could reap between 5,3% and 8,3% higher earnings, those proving host-country's language proficiency after arrival accumulate from 6.4% to 9.3 % takings larger.

3.3.3. The European Context

Taking ethnic groups' earnings differentials in proportion to language skills in Britain as subject of investigation, Blackaby et al. (2001) state that language penalty pales beside other effects. On the other hand, Shields and Price (2001) maintain that occupational success of the foreign-born in Britain is for the most part determined by language fluency.

Other scholars (e.g. Dustmann, 1997; Grenier & Nadeau, 2011) served themselves with different ways of gauging and identifying language proficiency of immigrants. Investigating immigrants' productive skills (speaking and writing) in Germany, Dustmann (1997) found that both facilities are largely shaped by parental education. Dustmann (1994) finds that immigrants' German language skills in general, and proficient writing abilities in particular, are rewarded with higher wage premiums in Germany. Making use of home language besides official language towards detecting language competency and making it stand out, Grenier and Nadeau (2011) concluded that the language spoken at home plays a significant role in evaluating immigrants' proficiency in the official language, the former being a causative factor of pertinent influence on the latter.

Exploring miscategorization matters alongside individuals' oral competency and wage premiums discrepancy to identify the determinant factors of language skills efficiency and language proficiency in relation to incomes among immigrants, Dustmann and Soest (1998) allowed for the respondents' language fluency Census data reported by the German Socio-Economic Panel and arrived at the ultimate conclusion that the results reported by previous studies prove statistically inconsistent. The authors, for that matter, argue that immigrants' years of schooling positively correlate with their wages; they sustain that higher educational achievement plays a major role in facilitating the task of becoming more proficient in the host country's language for immigrants, further translating into higher earnings: the better educationally achieved an immigrant is, the more linguistically fluent, and hence the higher the incomes, and vice versa.

Grin (1997) and Grin and Sfreddo (1998) find that, in Switzerland, while Germanophones and Francophones collect relatively comparable earnings, Italophones receive dramatically lower incomes. Deploying the 'Foreign Language Competence in Switzerland' Survey to determine the economic value of English in the Swiss labor market

by reckoning salary disparities in terms of proficiency degrees in English, Grin (2001) reports that, though comparatively strikingly less when placed in juxtaposition to high English language proficiency that can reach about a third of the total earnings differentials, less fluency in English scores higher wages still. While some papers promote the idea that English will conquer world trade dealings in light of ever-intensifying globalization, we strongly share the idea of Grin that a language diversity policy is the best choice, and a monolinguistic policy (even if that language were English) would soon prove to be a lost cause.

Taking gender, age, marital status, foreign language fluency, years of education, years of residence, and the linguistic distance of native language to the foreign tongue (mainly differences or affinities in terms of script, vocabulary, grammar, and pronunciation) as determinant factors to pore over the Spanish labor market advantages and wage disparities of the non-native's foreign language skills, Isphording (2013) displays sizeable earnings for fluency in either second language: English, French, or German. As things stand, the growing Spanish labor market demand for foreign languages, magnified by the foreign language deficiency in Spain, particularly benefits immigrants demonstrating knowledge of Spanish. Contradistinctively, the study that was conducted in the Baltics (Latvia and Estonia) by Toomet (2011) nullifies the hypothesis that majority language mastery ensures obtainability of high-paying jobs. Again, the investigation reports that command of English assures a minimum of 15% wage premium.

3.4. Language within Business Contexts

As international companies seek to expand their clientele and reach larger global markets, they must confront the challenges of communication caused by language barriers following their installation in different parts of the world. Having been a forgotten factor

in scholarly considerations for quite long within international business contexts roughly until the turn of the 21st century, language was poorly investigated and unfairly taken as the cause of all evils in the workplace and marketplace. This misrepresentation is associated with language in general but is held vice-like when it comes to language multiplicity. Multilingualism is typically regarded as a barrier, rather than a resource, to efficiency and knowledge sharing (Luo & Shenkar, 2006; Lauring & Selmer, 2012; Neeley, 2013), healthy business conduct, sound organizational structure, effective communication and fluid work relations (Marschan-Piekkari et al., 1999; Brannen, 2004; Vaara et al., 2005; Luo & Shenkar 2006, Harzing, et al., 2011).

Perceived auspicious enough –though not undisputedly– as panacea to communication complications in workplaces abounding with a diversity of languages, the alternative in vogue is to opt for a common corporate language (Feely & Harzing, 2003; Piekkari & Tietze, 2011). However, this 'one language fits all' policy (Piekkari & Tietze, 2011) causes great controversy between its proponents and opponents.

Partisans of language standardization deem a lingua franca (English) to be, among other considerations, a handy and less costly endeavor for the organization, a more effective way to ensure ease of communication and workplace integrity, and an alternative that is at an even distance from conflicting cultural backgrounds and linguistic profiles. Thinking of language as a source of power and the complexity of language use as a context-sensitive phenomenon, critics of this approach, however, object to a centralized single-corporate-language choice, not least, English-only, since it is a superficial and oversimplified policy. Therefore, these critics opt instead for language contextualization. The contextualizing approach favors taking a loose context-based and contingency-dependent language choice position in workplaces, where no one particular language should be imposed but rather any language(s) can act as seen fit for the context.

Marschan- Piekkari et al. (1999) perceive language as a barrier for multinationals when daughter companies cannot manage effective communications with each other due to their respective different local languages and with the holding company whose official corporate language does not line up with the local languages used in its subsidiaries. On the other hand, while a shortage of language skills among the stuff hinders fluid relationship building and hampers effectual information dissemination, an abundance of them fosters high-quality interpersonal as well as cross-subsidiary relations and communication. The authors argue that in the latter case language acts as a facilitator. Employees with the required set of language skills gain prestige in multinationals and acquire more power due to their ability to communicate more effectively and with more people.

3.5. Language Choice in Multilingual Settings

The study of language in relation to international business grew at a slow pace during the ‘90s but has exceptionally and considerably been accelerated over the last two decades. Of course, there is a range of different topics and perspectives which researchers consider in dealing with linguistic matters in cross-border settings. Language, being a construct comprising a multitude of levels, namely: private, firm, collective, and nation levels as well as multi-level (Brannen et al., 2014), enjoys a central role in every aspect of business and daily life.

Seargeant (2009) holds that while language ideologies influence the social behavior of community members, these ideologies are answerable for and simultaneously underlain by intergroup power relations. At a national level, this is reflected in which language is chosen as official/national, and in organizations the issue manifests itself in the language selected as the lingua franca.

When matters of interaction (verbal or non-verbal) are addressed with serious attention in an organization, we speak of organizational communication; but when a language is chosen to serve the communicative needs of a particular corporation, we speak of corporate language. An important distinction to make concerning language choice and its levels is that between the micro-level where alternation occurs between two or more languages within the same encounter, and the macro-level where interlocutors choose to use just one language for interaction. It is more often the case that in a communicative event where interlocutors speak different languages, choice falls upon some language intelligible to all the parties involved. Generally, this common language could be the language of either side, or it could be a third language distinct from the speakers' but comprehensible to them. Speaking of international settings, English is presumed to be the common tongue by virtue of which users of distinct languages find common ground. This latter statement is especially believed to hold, to the perception of many researchers, in multinationals where English functions as the corporate language with an attributed status of excellence in pulling together individuals with diverse linguistic backgrounds.

Fredriksson et al. (2006) tell that before the turn of the millennium little attention was paid to the important role of language within multinationals. But during the '90s many researchers demonstrated keen interest in the factor of language in corporations and by gradual steps came to divulge the complexity underlying linguistic practices in multinational milieus, wherein a lingua franca remains less of a remedy to resolve workplace communication intricacies. The multiplex nature of the linguistic realities and communication scenarios within multinational work environments shifted the prevailing scholarly concentration from lingua franca –during the opening decade of the 21st century– to linguistic diversity in the subsequent decade. Mediating the linguistic spectrum in multinationals, the corporate or common language (usually English) cannot

claim complete sway over the scene, and other languages impose their presence on the stage as well (Lauring & Selmer, 2010; Angouri, 2013; Gunnarsson, 2014; Logemann & Piekkari, 2015).

Community members share a common language for communication. Considering language boundaries, a speech community can comprise smaller linguistic communities; and this is expectedly more likely so in the case of multinational workforces where employees of different origins and/or linguistic backgrounds tend to form ghettos and construct distinct language groups to maintain their distinctive identities and the sense of belongingas well as to sustain their cultural attachment. As language boundaries are interaction-based, language choice among multinational workforces within cosmopolitan organizations leads to the formation of primary speech communities along with secondary linguistic communities (Feely & Harzing, 2003; Tange & Lauring, 2009; Henderson, 2010; Logemann & Piekkari, 2015).

3.6. Strategies of Managing Language(s) within Companies

Today's globe is one which houses great numbers of worldwide-operating companies and one with unprecedented cross-border labor force movements. To keep up with these rapid universal developments and changes, businesses are forced to shift from traditional national manpower reliance to globalized transnational workforce recruitment. With diverse employees, firms naturally become cosmopolitan settings where different cultural and linguistic profiles interact. Workplace agents' cultural and linguistic diversity can be a resource or a detriment to organizations. Supervising this diversity turns out to be a requirement in either case if multinationals wish to achieve effective communication and efficient business conduct. Both a monolingual approach and a multilingual paradigm can

be a double-edged sword. Even when planned aptly and adeptly, either of the two policies can bear significant risks and/or rewards.

Language management strategies within corporations vary according to the nature, size and structure of the latter, but the most common strategy, as the bulk of research has it, is to adopt a lingua franca, which generally happens to be English, as the contact language between companies (Firth, 1996) and people whose tongues are not the same. English being adopted as a common language for communication between two or several parties speaking different first tongues means that those intercommunicators use a language that is not their own, i.e. a foreign tongue. Use of a language that is not one's own is susceptible to bring about a number of complications given that mastery of it runs on a scale of variance between effective proficiency and defective fluency among its users.

Having regard to corporate milieus, Lauring and Tange (2010) observe that despite company practices of opting for English as a corporate language, local languages retain status and do not cease to be used in the workplace, especially at the informal level of work conduct and relationships (socializing with the other). This testifies, ergo, points out Saulière (2012), that the choice of English as a corporate language is in the main underlain by functional drives to maintain external communication with partners, from customers through suppliers to the parent or daughter company.

Relegation and sidelining of local languages by a corporation in its setting of operation renders it impuissant (Harzing, 2002) since dependency on English alone poses a range of challenges as it falls short of achieving effective negotiations in contexts where contracts and regulations are found in the national language (Grzeszczyk, 2015). Grzeszczyk (2015) contradicts the running trend of sensationalization of the world

domination of English among the contemporary research circles and forecasts Arabic, Mandarin Chinese, and Spanish to outrival English and take over the lion's share of international business dealings and transactions in the not-too-distant future. Bloomberg (2011) shares the exact same view after a research he carried out to identify which languages apart from English have the potential of leading advantageous business conduct in Europe, with French added to the collection.

Interestingly, which languages will be in demand prospectively in the context of the US and the UK is delineated by the Language Flagship (2009) and the British council (2013) respectively, giving credit to those same aforementioned languages, with the additions of German in the case of the UK; and Russian, Hindu, and Portuguese in the US. The conclusions set forth by the Language Flagship in the context of the US are consistent with the findings of Kordsmeier et al. (2000). In other words, all of these studies and others call for multilingual considerations instead of the narrow one-language-reliance tendency. An over-reliance on English, for example, may initially serve well for the short-term as in the case of market entry but could subsequently fall short of commitment in the long run.

Likewise, Hagen (2008) maintains the same line of argument and reports a claimed retreat from full support for an all-English policy, pointing instead to a growing, strong predisposition to the plurality of languages among a considerable number of multinationals. Maintaining the adoption of and adaptation to more languages, particularly those rising in importance in the global business world and markets, is precisely the way to go if a multinational wishes to sustain its (international) market leadership and its competitive advantage. Anticipation of prospective scenarios in light of modern economic orientations and current world developments provides a bird's-eye view of the (global) economic panorama, predicting which language(s) will be needed most.

Another option on the list of strategies which companies may apply in managing language is the adoption of some language(s) as official (for communication, contracts, documents, etc.). This is known as corporate language. Corporate language might on the surface seem an easy and free-of-charge move, but the implementation of such a strategy surely brings costs of so doing to the fore. However worthwhile an enterprise, it is not without drawbacks. In order to enforce a corporate language policy the first thing the company should make sure of is the consent of the majority of the employees and if that would bring them to common grounds; next, the company should provide language trainings to ensure the minimum linguistic competency required and equilibrate the language skills of the personnel. Linn et al. (2018) state that selecting some language and officializing it as a corporate language sets a major confluence of the corporation's employees' linguistically diversified backgrounds.

The expansion of businesses beyond national borderlines presumes that if there is to be efficient company economic activities, there must be better communication. The success of international business resides with the adequate manipulation of language differences and communication barriers as corporations span local and continental boundaries. To gauge the effectiveness of corporate language policies for international business communication in multinationals, Storozum and Linowes (2013) investigated the role of English as the official corporate language in two corporations situated in entirely culturally and linguistically distinct contexts, one in Finland and the other in Japan. They found that the implementation of an all-English corporate language approach proves inadequate in a globalized world. This lead them to conclude that alternative multinational language management policies, namely of a multilingual nature, should be sought to improve international business communication.

Defective in that it could lead to divergent thinking between the conversationalists (Harzing, 2002), one more strategy of language management in business settings is the so-called “functional multilingualism” (or “hit-and-miss”) which entails transmission of information between interlocutors through a cocktail of verbal and non-verbal communicative means (Grzeszczyk, 2015). In adopting a multilingual mode, companies are believed to make the most out of the diversity of backgrounds characterizing its human resources. In opposition to the perceived restrictive corporate practices of selecting English as the defining language of the corporation and its operations and communication processes, a multilingual model could be the best practice seeing its wide range of advantages.

3.7. Corporate Language Management

Lüdi et al. (2009) state that, sociolinguistically speaking, when it comes to communication and the language used, employees act on their spontaneous linguistic practices with no obvious conformity to official discourse stipulations; they improvise heedless of the language management rules imposed by the employer. Employers’ language management rules and measures may explicitly or implicitly impact language practices (Truchot & Huck, 2009). Language planning decomposes to macro language planning and micro language planning. The dialectical correlative influence between the two levels, as argued by Jernudd and Neustupný (1987) and Neustupný and Nekvapil (2003), is illustrated with reference to Language Management Theory. This theory in its own right breaks up into macro-language management and micro-language management. The macro-language management being formal and institutional as it is enacted officially by the organizational management and the organization itself, maintain Nekvapil and Nekula (2006), whereas

the latter hinges on, further sustain the authors, informality as it embodies the actors' language management on a daily basis.

Commonly agreed by sociolinguists, communication specialists, and management scholars is that corporations lack language-use systematization which is susceptible to be detrimental to their perceived interest. Considering state laws and regulations, company policies and strategies, workplace proceedings and procedures, as well as employee preferences and linguistic practices, corporate language-use regulation can be regarded as worthwhile or counterproductive. It is perceived, however, that a language policy that is too rigid is likely to bring with it calamitous consequences; as is also the case on the opposite extreme, if language planning is too loose. A wise corporate language policy would flexibly cut its intermediate way through as amenable and versatile, accommodating the running workplace realities, different workplace actors' disparities and commonalities, company interests, market needs and (host) governmental policies. Noteworthy is the potential trend of shift in the terminology of language use regulations, with 'language management' alternating with, or even apparently gaining ground over in the corporate context , 'language policy' and 'language planning'.

3.8. Conclusion

To be bridged with the previous chapter, the current chapter opened with a review of the studies that addressed host country language efficiency and its socio-economic returns, highlighting the link between language proficiency and earnings in different (business) contexts around the world. Subsequently, this chapter presented corporate communication in terms of interpersonal and intergroup relationships, communication tools and channels, information dissemination, work instructions transmission, and the like, by adopting an interdisciplinary conceptual framework. It reviewed the concepts of corporate language

standardization and language contextualization. Besides corporate communication, the chapter allowed also for corporate language management. It is displayed that there is no fully mature theoretical language management framework yet, since the perspectives remain fragmentary and none of the models developed so far are comprehensive enough.

Chapter Four

The Research Methodological Framework

4.1. Introduction

The current chapter provides an outline of the research methodology followed in the present thesis. It discusses the research design exploited to achieve the study aims. The discussion will take in a portrait of the general setting character of the research, shedding more light on the approach employed along the different methods of data collection procedure. The chapter is also meant to demonstrate the different typological levels of the data relevant as regards the study overall inclination as leaned on a mixed research design, which basically requires a variant temper of capitalizing on a quantitative-qualitative paradigm by particularly employing a two-level data elicitation tools: a double-function questionnaire and a semi-structured interview. After allowing for the justification regarding the research design adopted, the statistical data analysis processes and procedures adopted are introduced and backed up with the rationale lying behind their usage.

4.2. Research Design

Systematic research typically means that researchers will be required to follow a sequence of interconnected established stages that collectively shape and form the design of the overall inquiry objectives. A research design could be defined as “the procedures for conducting the study, including when, from whom and under what conditions data were obtained. Its purpose is to provide the most valid, accurate answers as possible to research questions.” (McMillan & Schumacher, 1993, p. 31). or “the researcher’s plan for the study, which includes the method to be used, what data will be gathered, where, how, and from whom” (Ary et al., 2010, p. 32).

Accordingly, a research design is the broad blueprint of data collection and the steps, measures and methods made use of in the analysis of data towards highlighting the problem(s) under examination. The ambition lies in acquiring data useful to answer the research questions. There are typically two broad research approaches under which are sub-variant methodologies; these are quantitative and qualitative approaches. The following review about the two approaches will serve justifying our choice of which type, i.e., whether to approach the study in hand quantitatively, qualitatively or a mixture of both.

4.2.1 The Quantitative Approach

Quantitative research denotes the type of enquiry of which basic characteristic is its reliance on data that is quantifiable (Robson, 2002). Therefore, it uses data that is in the form of countable and numerical calculations which subsume both inferential and descriptive statistics (Ary et al., 2010). Quantitative research is paradigmatically a sub-extension to the positivist enquiry which emphasizes that truth can be established by objectively examining facts with a tangible discipline that detaches human beings from nature and phenomena (Easterby et al., 1991). In addition, quantitative designs are those which apply a heuristic approach by establishing scientific evidence through supportive slices of realities generated by a careful examination of data and its analysis (Herbert et al., 1989), which is often referred to as deductive reasoning research that is informed by ancient logical rationalism stemming from the philosophical doctrine of positivistic thought (Ary et al., 2010; Gray, 2013).

Further, quantitative research designs are generally governed by a framework that is set forth before an investigation would start (Ary et al., 2010), which makes them perfectly fixed-designs in perspective (Robson, 2002). In such research, specialists agree

that a general thumb of rule is that large randomized samples are used and the results obtained are open to replication and generalization for the broader population from which that sample is initially drawn. And, above all, following Frankfort-Nachmias and Nachmias's (1992) statements, the quantitative approach is of indispensable utility in checking the validity of the hypothesis(es) underscored.

4.2.2 The Qualitative Approach

In opposition to quantitative research is qualitative research. The latter is an approach that is informed by phenomenological philosophy which emphasizes that individuals affect and are affected by natural settings, so that they are considered inseparable from it (Ary et al. 2010; Gray, 2013). It is a research type that involves descriptive methods to phenomena as semi-naturally occurring events, so that attempting to study them as they are without artificial setting of its procedures which are pertinent tenets of quantitative-based inquiry. Therefore, subjective interpretations and involvement of critical personal views are important elements in qualitatively-led designs (Ary et al., 2010; Robson, 2002).

Robson (2002) stresses the importance of terminology used to describe research designs and approaches. He points out that the terms 'qualitative' and 'flexible', as used to indicate an approach usually in opposition to 'quantitative' or 'fixed' designs, bear on multiple features. First, they are primarily characterized by an extensive usage of methods that result in qualitative data that mostly come in words-form. Second, being flexible signifies that the chosen research approach has a sense of a very limited mode of methodological restriction, which means there is some freedom that such designs may well evolve and develop as the inquiry takes place, and this is due to the fact that such research is inclusive and may occur to widen scope as it proceeds on in order to grasp the

most representative scope for the phenomenon studied. Robson, though, prefers to stick to using the term 'flexible' –rather than *qualitative*– for the fact that these designs also make use of methods resulting in quantifiable data which are amenable to statistical analysis, in addition to data that is in the form of words. For him, *"*labelling them as qualitative can be misleading*"* (p. 5).

According to Strauss and Corbinf (1990) and McMillan and Schumacher (1993), the qualitative method of analysis does not express results numerically. Being explanatory rather than exploratory, narrative rather than experimental, this method parts ways with statistics and numbers, and uses, instead, description and words in its analysis and observable output (McMillan & Schumacher, 1993). In fact, by virtue of the qualitative approach, which employs textual analysis, the researcher can effectively explore and interpret the mindset and behaviors of applicants (Nunan, 1992). Bogden and Biklen (1992) list the general features of qualitative study. These are the following:

- The natural setting is the direct source of data and the researcher is the key instrument;
- Data are collected in the form of words;
- The process and the product are important;
- The data analysis is inductive, and the theory is constructed from the data; and
- The perspective of the subject of a study is very important to the researcher.

Thus, this type of study is context-based and involves, more or less, subjectivity on the part of the researcher as a central tool and who cannot, on the traces of the qualitative approach, pre-design the steps to stick to before launching on the research.

4.2.3 The Mixed Methods Research

Historically, qualitative and quantitative approaches were often regarded as adversarial research traditions, with the quantitative approach cherished within human and social sciences for a long time before the advent of its counterpart qualitative research. However, in recent times, both approaches are critically reconsidered and seen as leaning on one another than being two horns. Therefore, using a mixture of both quantitative and qualitative approaches gave birth to a third paradigm that is thought to have an end objective characterized by more reliable findings (Ary et al., 2010).

Consequently, it is logically conceived, following the objectives the exploration in hand concerns itself to accomplish, that a mixed method approach is apparently the most convenient for our research study. Our choice of this approach is particularly incentivized along the lines of a good opportunity it serves for a precise and telling research problem statement, towards pursuing the study objectives. Besides leading to objective discernments, this approach yields detached conclusions and adds to the data collection reliability and validity.

Some specialists claim that although quantitative and qualitative research designs are quite different in almost all respects, they recently have come to be recognized more as two faces of the same coin nonetheless (Ary et al., 2010; Robson, 2010). In fact, with the attributes each of the two designs displays, they can perfectly work together in certain ways and as a result shall present a framework of exhaustiveness in scientific investigation. Based on that perspective, an emergent research fashion has come into existence with its rationale and justifications of utility; it typically utilizes two or more research traditions, where in the main quantitative and qualitative approaches are mingled together to form a new paradigm labeled *mixed methods research*. With the purpose of

offering a brief relevant and contextual account of such design in regard to its suitability for the ongoing project, some merits of this tradition are presented, concluding especially by how the selected means of data collection is in line with such inclination.

Creswell and Clark (2018) discussed a number of advantages in using a mixed methods research design. First, this research method is by excellence a way of eliminating the weaknesses that may be inherited within both qualitative and qualitative approaches when either of them is used alone. For example, it is argued that a quantitative study would ignore the background of people as a possible influential factor, and thus part of an interpretive insight is disregarded. In addition, it is usually the case that informant's views in the form of opinions, attitudes, affect or feelings are not accounted for in a quantitatively-based research. In contrast, qualitative research attempts to take such factors as its starting point, so that descriptive narrations stemming from an interpretation of people's viewpoints are by far important. However, generalizability which is a craved objective in research is easily threatened by the nature of qualitative designs because of the small number of participant samples, and that is one weak point that quantitative research makes up for. In other words, the complementary temper of qualitative-quantitative research, the authors argue, has resulted not only in a solid connection of two approaches as it resulted in a literally third strong research paradigm that mixes both into a new vogue.

Second, mixed methods research backs up investigation with more reliability than would either quantitative or qualitative inquiry each apart, because a mixture of the strong points of both will definitely nurture the study with extensive data types. This is due to the fact that using the research instruments for data gathering, that have for so long used to be restrictively characteristic to each type of the two approaches, will by excellence

contribute to richness and variety of data and ultimate insights upon results obtainment at the reporting stage.

Third, mixed methods research has the ability to deal with questions that are challenging to quantitative and qualitative approaches when used each alone. Indeed, researchers will often be encountered by problem questions that can hardly fit in as either qualitative or quantitative, but will at best be in the core of a mixed methods designs. That is primarily due to such inquiries that are in part better off if allowed for by statistical data to reflect on values that sum up factual results, and on the other hand the same inquiry has implicational content that draws on subjective views of participants to arrive at a comprehensive account supporting numerical data.

Fourth, mixed methods permit for obtaining insightful evidence which actually transcend the adequacy of each of the approaches if used in separate ways. Some methodologists prefer to metaphorically liken it to an addition formula of one plus one but of which sum equals to three rather than two. In other words, a quantitative research approach coupled with qualitative give the benefit of having a solid scaffolding baseline and which at the same time end up as having an ensuing unique research paradigm, characterized by combined strong points of both approaches.

Fifth, with mixed research a compromise is made to intermediate the common thrust that used to instigate a rivalry orientation of qualitative-quantitative poles, and thus makes of it more as a continuum of complementary stations.

Sixth, mixed methods research is rationally more practical as it gives researchers the opportunity to gain more freedom in dealing with their problem-solving situation, particularly in recourse to mixing number values with expressive words, as well as

involving direct observation not only to observe behaviors and record them as string accounts but also as recurrent instances, with provision of probable explanations.

Robson (2002) adds a few more essential positive aspects to using mixed paradigms, which can arguably be found in several studies. One probably most significant benefit of using mixed methods designs is allowing for triangulation, which “is a method of finding out where something is by getting a 'fix' on it from two or more places.” (p. 371). Also, the inclusion of different research methods into one merger will make it possible to answer several questions at a time, where such questions are complementary in solving the main research problem. Finally, a paramount advantage of mixing methods in terms of complementarity is their characteristic of confluence in enhancing “interpretability”. In one instance, the data obtained quantitatively and analyzed using a given statistical procedure and then interpreted accordingly might be refined by a qualitative narrative description. Likewise, a descriptive account of a study carried out initially by following a qualitative approach may well be enhanced by results of a quantitative research.

Because in the present research two main data collection procedures were employed (in which quantitative data is elicited through a double-questionnaire technique and backed up with qualitative data using a semi-structured interview), it is quite appropriate that a mixed methods design is opted for as the general tendency featuring the research direction. More detail of the data-gathering tools is due in the following sections.

4.3. Data Collection Instruments

The questionnaires and interviews were the source of primary data for this study. Secondary information of the corporations was obtained through inquiries imbedded in the discussion with the resource persons. Other details were obtained by browsing

through the multinationals' webpages. The participants were assured definite anonymity and confidentiality of the information and any other details related to them and to their respective employers. Because the names of the participant employees and their employing multinational companies are not mentioned in the study for ethical and confidentiality concerns, their details are not revealed; they are treated with a great deal of care to guarantee privacy as it was agreed on at the outset with the participant employees. In the following sections allowance is made for the different research tools used for data collection.

4.3.1 Questionnaire

Questionnaires excel over other research instruments in that they take less time and effort to design and distribute as well as answer and analyze. They also have the advantage of being conducted with more numbers of people in significantly shorter time periods compared to other research tools. Constructing questionnaires are the different types of questions which researchers find at their disposal along the procedure of devising an up to the standards questionnaire format. The following descriptive classification allows for the main question categories any researcher need be acquainted with when building a questionnaire; it is worthy to note that the questionnaire can include exclusively one type of questions, or amalgamate the different question types or varieties at once.

The rank-order question patterns: in this kind of questions, a catalog of patterns is provided and the informant is required to sort them out apropos of their substance using digits. The numeric question patterns: through this sort of questions, the researcher addresses particular background and personal information of the respondent like, for instance, origin, languages spoken, mother tongue, position(s) held, etc. The close-ended questions: these questions are of a varied character; they are multiple-choice questions

where only one or multiple responses can be picked out of the variety of the response choices listed. We can categorize them as follows:

- Dichotomous questions: these questions restrict the participant to select either of the pair answers given such as: ‘Positive’ or ‘Negative’, ‘Yes’ or ‘No’.
- Multi-choice questions: here, the participant is exposed to many answer options of which merely one or more can be marked.
- Open-ended-like questions: when neither of the choices listed corresponds to the situation or issue or when some more information, specification or clarification is needed, the participant is given a space of empty lines below the provided options to fill in.

  The open ended questions: in this category of questions, room is allotted for participants to freely write down their thoughts and views as regards the research theme.

4.3.1.1 Strengths and Weaknesses

The fame and the wide use of questionnaires stem from their easiness to construct, use, and monitor. The good impression they yield and their perceived virtues stand behind their popularity. The following are some of the benefits of questionnaires:

- The questionnaires are relatively more straightforward and undemanding to fill out.
- Through questionnaires, it is rather easier to access larger size of information and informants in less time, effort, resources and expenses.
- Through questionnaires, it is comparatively easier to pertinently and accurately generate, symbolize, codify, and analyze data.

Still, despite the virtues they abound with, questionnaires have a number of drawbacks; these downsides spring primarily from the subsequent facts:

- More often than not, participants tend to surmise the responses to the questions; this is most likely so when questionnaires comprise close-ended questions.
- Different interpretations, readings and conclusions can be provided by different researchers presenting the data obtained from the questionnaires.

4.3.1.2 Description of the Questionnaire

For the purpose of the present study, the questionnaire was in the main constructed in accordance with the theoretical part of the work in hand. It aspired primarily to correlate knowledge of languages and their use in workplaces of an international nature. The questionnaire was initially drafted and finalized in English and then translated into Arabic and French by the researcher. So, three different questionnaire versions in the three languages (Arabic, English and French) were sent to the participants for them to choose whichever version (language) seemed convenient.

The population of the study was the workforce in multinational corporations operating in Algeria; our two samples comprised employees from two multinationals, one French and the other Chinese. The questionnaire comprised significantly different questions varying between multiple choice through Likert-scale to open questions, regardless of the nature of the informants' professional occupation, i.e., whether belonging to the high-level staff (managers and executives) or making part of the low-level staff (workers or subordinates). The built questionnaire is for a big part in the form of close-ended multiple choice sort of questions where informants can subscribe for a single or more options of the various choices provided. In the Likert-scale part of the questionnaire respondents should state their degree of agreement or disagreement to the

statements provided. However, the three questions closing the questionnaire are open-ended, where respondents are left with a generous space of empty lines to answer the addressed questions and express their opinions.

In a nutshell, our questionnaire is made to involve three of the previously elucidated questions, namely: numeric question items, close-ended questions and open-ended questions. This questionnaire model opted for is for the purpose of getting the respondents more engaged and be of special involvement with the subject. To score the most valid and reliable answers possible, and to save as much time and effort as possible, we sought to phrase and arrange the questions categorically in such a mode that informants would feel at ease while moving from one question to the next, as the questions run in such a successive order in terms of ideas. Based on the theoretical framework allowed for, every question or item relates, explicitly or implicitly, to a particular dimension of the current research study.

In general terms, the present questionnaire is outlined to gain more understanding of the relationship of languages to business, corporation success, wage differentials, management, communication effectiveness, and others. More specifically, the questionnaire is mainly designed to obtain insights into:

- Employees' perceptions of, attitudes towards language diversity and its effects on workplace practices and business performance;
- The extent of familiarity among employees with the languages used and their benefit to assembling the different backgrounds;
- The descriptions employees might affiliate to their language diversity practices; and
- Employee's perception of workplace communication problems.

The questionnaire opened with a general background information section asking

for personal and professional details, like gender, age, nationality, work experience, mother tongue, languages spoken, position occupied, and so on. Apart from the demographic profile section, the questionnaire was divided in three parts. The first part comprised 6 multiple choice questions. The second part consisted of 45 Likert-scale items; in this part participants had to indicate on a Likert scale from 1 through 4 the extent to which they agreed with the statements (1: Strongly agree, 2: Agree, 3: Disagree, 4: Strongly disagree). The last part contained 3 open-ended questions below each of which a free space is provided for further suggestions, remarks and comments. The set of questions were designed to be neutral and relatable to the different experiences of the potential respondents and their environments of work, as they are made to address individual and collective (work team, respective company or multinationals in general) attitudes, practices and ways of thinking and behaving.

4.3.1.3 Pilot Administration

Subsequent to drafting the pre-final copy of the questionnaire, a pilot study was carried out in order to clear possible ambiguities. The questionnaire was tested against efficiency, clarity, legibility, content validity, feasibility, layout, pertinence or any conceivable imperfections through asking a multilingual sample (six individuals) of colleague scholars at the University of Navarra –Pamplona– while in Spain, to fill out copies of it and then comment on any flaws or suggest any perceived changes. These individuals were from different nationalities and speak various languages including English, Spanish, German, Arabic, Basque, and French with varying mastery levels of each.

Despite the positive feedback of the commenters deeming the questionnaire as well-designed and appropriate, the insights and recommendations provided much served for piloting the questionnaire. The insights helped improve the questionnaire and get a 264

better refined version of it, as well as obtain more understanding and familiarity about what could come to pass in the principal survey.

After that the questionnaire was tested again with a small-size sample from the Algerian multinational (SONATRACH) in order to check the clarity and pertinence of the questions or any ambiguity with the items, before the final online versions were sent to the concerned survey participants from two foreign multinationals working in the south of Algeria. The structure of the questionnaire and its questions were commented on as clear and easy to understand, with a few more, useful remarks. It is to note that this small pilot sample was initially to be taken as the sample of the study as it turned out very challenging to reach out to more participant employees from other corporations at that time, mainly due to the outbreak of the world Covid-19 pandemic which imposed a long lasting nation- and world-wide lockdown of businesses. But then, luckily, things figured well soon enough as of contact with significantly wider numbers of employees from a couple of distinct companies was made possible, thanks to an intermediation on the part of a resource person (family member) who himself is a manager in a leading multinational company (ADC) located in the Middle East, and who formerly held various positions of seniority in many of the international companies operating in Algeria.

4.3.1.4 Questionnaire Administration and Analysis Procedure

The distributed questionnaire was the same for all the participants, regardless of their work position or company of affiliation. The questionnaire was sent online in autumn 2020, to an overall number of 70 employees from two different multinationals functioning in the south of Algeria: 31 from Company1 which is Chinese and 39 from Company2 that is French. Subsequent to retrieving the completed online questionnaires, each participant's filled in copy was codified (given a symbol). The data were next all

manually entered and saved into the statistical program IBM SPSS Statistics 20, put into numerical crosstabulations and subsequently interpreted and analyzed in terms of descriptive statistics. The data were filled in and treated anonymously, and were inserted in a way that draws attention to the sundry correlations between the various responses. The next chapter concerns itself with the questionnaire data analysis.

The questionnaire meant participants to clear up their workplace linguistic experiences and language practices. The analysis of the questionnaire results is performed in a fashion of comparison between the responses obtained from the two samples by means of a statistical test called Goodness of Fit or Chi-square test (to be expounded further below). For space considerations and because the cross tabulations are clear enough to read, no graphs were used to represent the results. The results were presented in tables only, then read off subsequently and immediately.

As for the statistical analysis of the Likert-scale part of the questionnaire, the researcher is well aware of the suitability of One-way ANOVAS for this type of data. But because the values of the scale used in the context of the study were not considered to be purely ordinal in essence, the Chi-square occurred more appropriate a test to run instead. A good note to make is that the Chi-square is workable for this type of data only when the scale values lack ordinal significance. With the Goodness of Fit test used all throughout, it is important to know that the coefficients used in the case of the Likert scale is a different one from the pair of alternatively employed coefficients used for multiple choice questions (a whole section about the statistical procedures adopted here is provided further down in this chapter). For that matter, devoid of an ordinal nature, the Likert scale values were only used here to derive on the opinions and attitudes of the participants which could have otherwise been unobtainable were the statements put in

the form of independent questions. Giving those statements the shape of separate questions would have made the questionnaire tediously long and boring to fill out.

4.3.1.5 Participants

The surveyed participants varied in terms of, among other considerations, their nationalities, experiences, positions held, linguistic repertoires, as well as educational levels and achievements. There were university graduates, and those who entered university without carrying through their studies. Others hold different professional degrees, even if their education stopped in high school. To recapitalize, two groups of employees from two different multinational companies operating in the south of Algeria were included for the questionnaire. They were categorized as the two samples from which the quantitative data was gathered.

The respondents from sample 1 were a group of 31 Algerian and Chinese male employees aged between 21 and 63 years old, working for the Chinese company. The native languages among the Algerian are both Arabic and Chaoui while Mandarin is the mother tongue of the Chinese. The foreign languages spoken among these participants include mainly English, and some basic French, besides other languages deemed irrelevant as they were never used.

Sample 2 comprises 39 male employees from diverse nationalities working for the French company, with the youngest being 25 years of age and the oldest 59 years old. The nationalities of these participants are Algerian, Nigerian, South African, French, Romanian. The languages spoken by these individuals, including mother tongues, are: Arabic, Chaoui, Igbo, Afrikaans, English, French, German, Spanish, Romanian.

The nature of our study has culminated in opting for different procedures and techniques for data collection and ways of approaching the topic, by applying the triangulation technique. In addition to the questionnaires, semi-structured interviews were used to research the linguistic practices of employees within multinational workplaces.

4.3.2 Interview

To adequately answer the research questions, a qualitative approach to data gathering was also adopted. Questionnaires while being one of the main and primary means of the data collection process were not to stand alone. Backup was due in recourse to another significant instrument: interview. This tool is regarded compatible to acquire painstaking knowledge of specific settings characterized by multilingualism and people speaking multiple languages (Codó, 2008).

It is argued and agreed on in research that interviews are generally qualitative and provide exhaustive data which can take considerable time and effort to collect and analyze, in consideration of the various procedures and methods of analysis required. In this study, besides the quantitative method used to gather quantifiable data by means of a questionnaire, in-depth semi-structured interviews were used to collect qualitative data. Choice of this type of interviews goes to its flexible nature of both giving more freedom to the informants to elucidate their ideas, and proffering more opportunities to the interviewer to dig deeper into potential relatable issues that interviewees may address during the session.

The informants were a group of nine (09) male, 30-63 years old, employees, both in managerial and subordinate positions; mainly from three different multinational hydrocarbon affiliates, all located in the south of Algeria (particularly, in Hassi Messaoud –Ouargla).

Although the general outline and main themes of these open-ended interviews were decided in advance, the order and the way in which questions were asked slightly varied from one participant to the next as seen fit in the circumstances. Conducted via WhatsApp and Messenger voice calls in the autumn of 2020, the interviews were then treated accordingly. The first step after the interviews were carried out was transcribing their content, then describing the data and categorizing it into themes comprising sets of comparable ideas or topic strings, to finally be linked and combined together for an examination of the results from the different perspectives provided.

Excerpts from the interviews were translated from Arabic, Chaoui and French into English to be cited during the analysis and interpretation of the results. It is in the interview results analysis chapter (Chapter VI) that a comprehensive account about the interviews is given. This step is deemed harmonious and more adequate to keep the reader more focused and better connected.

4.4. Statistical Procedures for Data Analysis

The passages that immediately follow serve in part as an introductory paradigm for the choice of the data processing procedure, as well as an explanatory background of the statistical critical values table that is the basis for presenting the findings of the questionnaire data. The two latter of which are the baseline of data analysis. The table is of a universal meaning made up by statisticians and is useful to a large number of arithmetic computations for a variety of inferential statistical purposes. It offers the summary of the requisite components to be employed for applying the statistical procedure of interest to the present study. Later on, in the reading of the output of the test findings, there must be reference to the table dataset against which values are compared and thus, inferences shall be made in order to draw the conclusions of the outcome results.

4.5. The Two-variable Chi-square Test (Chi-Square Test of Independence)

Throughout the questionnaire, the major type of item questions used were of nominal-data category, in which multiple choice questions are mingled with several other types. Decisions have to be made of which statistical dimensions are more appropriate. The suitability of the statistical test procedure hinges much not only on the nature of data, but also on the sample characteristics. Nominal data processing and analysis involve Chi-square statistics. This is particularly a wise choice when data is obtained from two independent samples of two different populations targeting the same phenomenon.

By ‘independent’ is meant when the two groups under consideration are: firstly, exclusively separate from one another; secondly, the sample sizes of the study groups are unequal (McHugh, 2013); and third, that no outcome result would ensue if an effect or change occurs on the level of the other. Gender in which there are two mutually exclusive categorisations of either male or female is one illustrative situation. Apparently, the research samples of the present survey belong to two independent groups extracted from the populations in two different multinationals.

By definition, "[the] Chi-square test of independence (also known as the Pearson Chi-square test, or simply the Chi-square) is one of the most useful statistics for testing hypotheses when the variables are nominal” (McHugh, 2013, p. 143). For its known usefulness and authentic precision, the Chi-square test is one of the mostly used tests of all.

Chi-square tests are a comparative measure of two values; the first is the actual observed counts as generated by the real statistics of the data, which in turn is jointly contrasted to the second, expected counts, in order to elicit the differences or associations (Cohen et al., 2007; Ary et al., 2010) between two dimensions of dichotomous variables.

By setting a decision rule of the test, processed data will be compared whether it represents a statistically significant difference/association or whether it is solely the product of chance (Ary et al., 2010).

The Chi-square is usually symbolized with (x^2) and calculated employing the formula:

$$x^2 = \sum (f_0 - f_e)^2 / f_e$$

Where

$x^2 =$ value of chi square

$\sum =$ the sum

$f_0 =$ observed frequencies

$f_e =$ expected frequencies

It is important to be aware of the fact that the Chi-square test is based on the idea of statistical significance level (often symbolized 'α') and the degrees of freedom. As clearly indicated by Singh (2006) and Kirk (1999), statistical significance refers to the fact that the findings from the application of this test did not result from sampling errors, and therefore chance is an unlikely explanation. Very commonly, the level of statistical significance at which the results are reported is $\alpha = 0.05$. Together with the α level, the significant coefficient value (known as 'ρ' value) at which level a *null hypothesis* (a term to be discussed shortly) is tested should be given. However, for more precision and reliability, it is argued that the significance level of correlation of variables is better off chosen in conjunction with the sample size. Cohen et al. (2007, p. 518) suggest that the

smaller the sample, the larger the coefficient has to be; the larger the sample, the smaller the coefficient can be.

Another coefficient, but of association rather than significance, is equally taken stock in respect the characteristic nature of the variables under analysis. In situations of sample size bias effects, considering an alternative square coefficient may well adequately be a crucial option (Cohen et al., 2007). Given that size effects are in perspective, when a variable of interest for measurement and the variable of contrast are nominal-dichotomous in nature, it is advised that the '*phi'* coefficient is taken up instead (Ibid, p. 524). Throughout the subsequent sections of the chapter, namely the analytical text, whenever *phi* is used, a reference is made. The notion of *phi* coefficient is harmonious with the assumption violation principle; an important factor where the statistics of a Chi-square are beyond the expectation of null hypotheses testing and ruin the validity terms of measurements. In assumption violated situations, the substitution of the Chi-square results is either the Fisher's Exact Test or Likelihood Ratio as the case may be.

In quantitative research, there is a pool of various user-friendly analytical software programs by means of which an analysis can be performed at a click of a button. In the case of the present study, statistical calculations are carried out via the well-known SPSS program (standing for *Statistical Package for the Social Sciences*). The SPSS is so sophisticated that it performs almost all statistical tests with high time efficiency and absolute mathematical error-free results, providing input data is properly entered and coded. In the case of the Chi-square test, due to the fact that an avoidance of redundant calculation strings is a utile decision on one hand, and for drawing more focus to the pertinent points at issue for the purpose of the analysis on the other, SPSS is taking up on behalf the situation of more trouble than it's worth, where it is only a question of fractions of seconds that output data is laid out for reading off comparatively and interpretatively.

After the Chi-square of a given set of data is being calculated and that the level of significance is determined, the step that follows is calculating the degrees of freedom so as to restrict the scope of decision rule. Almost any text treating full statistical analysis will offer explanatory reference to the degrees of freedom and significance level. The procedure is to help test the hypothetical statements put in order, which in turn draws on whether to reject a null hypothesis or to accept it. Ary et al. (2010) indicate that it is always the hope of the researcher to find no support for the null hypothesis which conversely leads to the confirmation of the research hypothesis. The degrees of freedom for a set of variables are primarily decided upon in recourse to the number of these variables in a calculation. It is presumed that examining the relationship of a sum of two or more variables with a different set of other two or more variables is the starting point of degrees of freedom determination. It is common practice, however, that the researcher is supposed to seek the association or difference between a dichotomy against a pair or more traits. The process becomes easier when organizing the traits or values of analysis in tables, known as cross-tabulations. The usual way of cross-tabulating the variables of interest is by assigning the characteristics of study to the respective rows and columns. The larger number of such characteristic variables is given up to the columns while the rows for the smaller. Once that step is considered, the degrees of freedom are computed through a straightforward calculation that runs as *the number of rows minus one times the number of columns minus one*. Put mathematically otherwise, the formula is:

(number of rows − 1) × *(number of columns − 1),* or

$$df = (R - 1)(C - 1)$$

4.5.1. The Idea of Tailed-tests

One characteristic of quantitative enquiry is its hypothetic-deductive nature. Deduction is a philosophical doctrine developed by ancient scholars, mainly Plato, Aristotle and their followers. It is "a thinking process in which one proceeds from general to specific knowledge through logical argument" (Ary et al., 2010, p. 640). In recent times, a good bulk of research, which is based on quantitatively-led framework, has roots in philosophical deductive reasoning principles. Hypotheses are typically the constituent core of this type of theory-driven research.

There are two main types of hypotheses: *null* and *alternative*, typically symbolized respectively as (H_0) and (H_1). An alternative hypothesis (also known as the *research hypothesis*) is the statement declaring that a relationship exists between two or more variables.

In contrast to the alternative hypothesis, which stipulates such-and-such relationships, differences or effects exist among variables, a null hypothesis is the negation of that relationship (Ary et al., 2010; Cohen et al., 2007). It denotes a "statistical hypothesis" (Ary et al., 2010, p. 91). The purpose of using a null hypothesis, which actually denies any relationship, is primarily for data to be statistically amenable to arithmetic representations, and consequently thus carrying out the various pertinent tests involving equations of probabilities.

The alternative hypothesis is of two possibilities: either *directional* or *non-directional.* The former indicates the type of statements postulating that there is some sort of effect between two factors, and one which is assumed to go in one direction but not reversible. The latter category of a hypothesis, i.e., non-directional (also known as

bidirectional) is one which predicts that if there is such-and-such an effect between dichotomies, it is then assumed to be of a two-direction kind.

Having been briefly introduced to the two different types of hypotheses, it is appropriate to refer to two types of statistical tests, each of which represents one type of the hypotheses. A *one-tailed test* demonstrates one side of a bell curve in which a given parametric representation lies. The one-tailed statistical test is reminiscent to the directional hypotheses, and thus is used to test their validity in terms of the statistical significance (see figure 1 below for more clarification). In the same way, a *two-tailed test* is quite a one-tailed test together with its symmetrical representation. i.e., on a bell curve parametric representation, the values for a two-tailed test are laid out on the two sides within two given restricted spaces (see figure 1 below). The two-tailed test is useful in testing how much a non-directional hypothesis is statistically supported. Typically in relation to X^2 test, only the positive tail of its distribution is used. In the current project, the directional research hypotheses are the appropriate category used.

4.5.2. Assumptions of Chi-Square

In applying the Chi-square model, it is essential to bear in mind a number of considerations. Besides to the fact that a minimum number of individuals in the selected samples is required, the sub-sample cases resultant in calculating the expecteds should alertly be under close examination before jumping to the reading off of the data output. Cohen et al.(2007) argue that the number of cases per study will decide the α level of significance, let alone the follow-ups of this measurement tool. Ary et al. (2010, p. 192) advise to practice caution in dealing with data analysis via Chi-square statistics; they suggest that due to the seeming easiness of using the procedure, a researcher “may forget

that there are assumptions that must be met if valid interpretations are to be made." Accordingly, the assumptions underlying this model can be summed up in what follows:

1. Observations must be independent—that is, the subjects in each sample must be randomly and independently selected.
2. The categories must be mutually exclusive: Each observation can appear in one and only one of the categories in the table.
3. The observations are measured as frequencies.

The assumptions just outlined are to be taken carefully before even any performance of the statistic. Moreover, nonetheless, these criteria alone are inadequate for an efficient run of a Chi-square. Therefore, as the calculations are conducted on the level of the cross-tabulation stage, a pause for an initial examination of the values should be made. As pointed out above, a reconsideration of the sampling is very crucial in order to check for sub-sample output results. Cohen et al. (2007) note that in order for the Chi-square statistic to be validly applicable, the yielded counts of the contingency tables is required to include minimally five cases in at least 80 percent of the cells. The crucial issue is then how to deal with such problems when looming at avenue; worse even, after data have for so long been collected that a second chance for the researcher to revisit the potential participants is quite not feasible. Fortunately, statisticians provide the make-up for such urgency situations.

In the case where the assumption of 80 percent is violated, it is necessary to consider other substitutive tests which meet the requirements of the assumptions of hypotheses testability. Put differently, if the output computations produce more than 20 percent of the cases not satisfying the minimum set assumptions, a move to a more reliable test is required. When confronted by this type of situations, one of the more widely used is the Fisher exact test (Cohen et al., 2007). Yet, when the data processing is

commanded using software analytical programmes (notably SPSS in this case), it may not be that the output of calculations shall expose the Fisher exact test. The latter situation occurs when variables of comparison are of only two dimensions each. The alternative that produces reliably precise results is the use of the likelihood ratio Chi-square test (McHugh, 2013, p. 143). In the current study, when the x^2 test assumption is violated the analysis will lend itself to one of the two suggested solutions as appropriate.

4.5.3. Chi-square Effect Size Coefficients

The chi-square statistic is a measure of whether a relationship exists between the variables of interest, but does not report how strong or weak it is. Thus, other measures are recommended to be used. The statistical significance alone is not an index communicating the strength of the association. It follows that the problem becomes that the researcher is not able to conclusively infer which effect coefficient caused the difference (Cohen et al., 2007, p. 520). Statistics specialists have recently come to realize this more and more, and some even suggested that using other calculating factors is by far more essential than the Chi-square on its own (see e.g., Thompson, 1994). In chi-square of independence, the effect size coefficients which are more widely used are *phi* and Cramer's V. The former is used when the output cross-classification tables are a 2×2. In other words, *phi* is used when the analysis is undertaken over a dichotomous variable against another dichotomous variable. Similarly, the latter coefficient is specifically useful when the cross-classification yields a more than 2×2. The Cramer's V, additionally, takes into account the degrees of freedom (df^*) as shall be presented shortly. The values of both of these coefficients range from '-1' to '+1'. It must be noted that a '0' value communicates a null or the absence of a reasonable relationship, while '+1' signifies a highly strong relationship (100% positive correlation, or perfect agreement) and '-1' signifies a highly strong reverse interdependence (100% negative association, or perfect inversion). Another

important coefficient that is used to measure the rank association between two variables is Kendall's τ, developed by Kendall (1938); the only difference between this coefficient and the two previous ones is that it is specifically used for ordinal data. For the purpose of our study, Tau-b (or τ_b) will be used for the Likert-scale part of the questionnaire.

4.6. The phi, Cramer's V, Tau-b and the Respective Critical Values Restrictions

Usually symbolized as ∅, the phi for a given Chi-square can easily be calculated operating the equation:

$$\emptyset = \sqrt{\frac{x^2}{n}}$$

Where n is the total number of observations in a contingency table.

In the same way, Cramer's V which is a refined derivation from the phi, except that the n is multiplied by a df^*script, is calculated according to the formula that follows:

$$V = \sqrt{\frac{x^2}{n(df^*)}}$$

Where df^*stands for $(C-1)$ or $(R-1)$, choosing whichever smaller.

Cohen (1988) sets the values for reporting the phi coefficient

$0.01 < \emptyset < 0.30$	Small effect
$0.30 < \emptyset < 0.5$	Medium effect
$\emptyset > 0.5$	Large effect

Likewise, based on Cohen's (1988) criteria, Gravetter and Wallnau (2006, p. 605) summarized the critical values for reporting the Cramer's V as follows:

For $df = 1$	$0.01 < V < 0.30$	Small effect
	$0.30 < V < 0.5$	Medium effect
	$V > 0.5$	Large effect
For $df = 2$	$0.07 < V < 0.21$	Small effect
	$0.21 < V < 0.35$	Medium effect
	$V > 0.35$	Large effect
For $df = 3$	$0.06 < V < 0.17$	Small effect
	$0.17 < V < 0.29$	Medium effect
	$V > 0.29$	Large effect

Kendall's tau-b correlation coefficient, usually symbolized as τb, is calculated using the following formula:

$$\tau_b = \frac{n_c - n_d}{\sqrt{(n_0 - n_1)(n_0 - n_2)}}$$

Where,

$n_0 = n(n - 1)/2$

$n_1 = \sum_i t_i(t_i - 1)/2$

$n_2 = \sum_j u_j(u_j - 1)/2$

n_c is the number of concordant pairs;

n_d is the number of concordant pairs;

t_i is the number of tied values in the ith group of ties for the first quantity;

u_j is the number of tied values in the jth group of ties for the second quantity.

The critical values for Tau-b are:

$0.01 < \tau_b < 0.30$ Small effect

$0.30 < \tau_b < 0.5$ Medium effect

$\tau_b > 0.5$ Large effect

4.7. Chi-square Critical Values

The parameter for reading the statistics of the Chi-square values involves several sequential steps. Just like many mathematical universal metric values, this test has a basis ingrained in worldly acknowledged numeric digits to which comparisons are made and conclusive statements of statistical significance are drawn. The critical values of the metric measurement are summarized into a tailored table with differing levels of significance crossed with relevant degrees of freedom. A diagrammatic curve representation for what the critical levels of significance is usually accompanied. Below is what the table of values looks like along its respective diagram of representation.

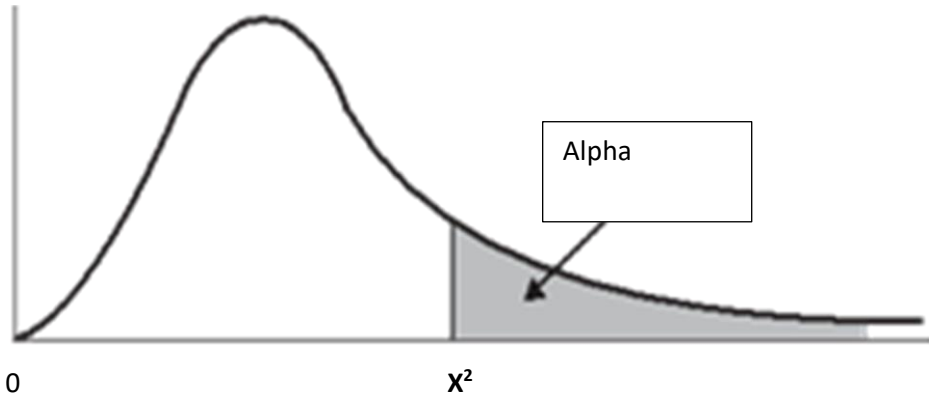

Figure 1 *one-tailed test statistical significance area curve*

Table 1

Critical Values of the X^2 Distribution

	Alpha (area in the upper tail)				
df	.10	.05	.025	.01	.005
1	2.71	3.84	5.02	6.63	7.88
2	4.61	5.99	7.38	9.21	10.60
3	6.25	7.81	9.35	11.35	12.84
4	7.78	9.49	11.14	13.28	14.86
5	9.24	11.07	12.83	15.09	16.75
6	10.64	12.59	14.45	16.81	18.55
7	12.02	14.07	16.01	18.48	20.28
8	13.36	15.51	17.54	20.09	21.96
9	14.68	16.92	19.02	21.67	23.59
10	15.99	18.31	20.48	23.21	25.19
11	17.28	19.68	21.92	24.72	26.75
12	18.55	21.03	23.34	26.22	28.30
13	19.81	22.36	24.74	27.69	29.82
14	21.06	23.69	26.12	29.14	31.32
15	22.31	25.00	27.49	30.58	32.80
16	23.54	26.30	28.85	32.00	34.27
17	24.77	27.59	30.19	33.41	35.72
18	25.99	28.87	31.53	34.81	37.15

19	27.20	30.14	32.85	36.19	38.58
20	28.41	31.41	34.17	37.56	40.00
21	29.62	32.67	35.48	38.93	41.40
22	30.81	33.92	36.78	40.29	42.80
23	32.01	35.17	38.08	41.64	44.18
24	33.20	36.42	39.37	42.98	45.56
25	34.38	37.65	40.65	44.31	46.93
26	35.56	38.89	41.92	45.64	48.29
27	36.74	40.11	43.19	46.96	49.64
28	37.92	41.34	44.46	48.28	50.99
29	39.09	42.56	45.72	49.59	52.34
30	40.26	43.77	46.98	50.89	53.67
40	51.80	55.76	59.34	63.69	66.78
50	63.16	67.50	71.42	76.16	79.50
60	74.40	79.08	83.30	88.39	91.96
70	85.53	90.53	95.03	100.43	104.23
80	96.58	101.88	106.63	112.34	116.33
90	107.56	113.14	118.14	124.12	128.31
100	118.50	124.34	129.56	135.81	140.18

***Source**: Essentials of Statistics for the Social and Behavioural Sciences (Cohen and Lea, 2004: 242)*

4.8. Conclusion

This chapter covered the methodological framework of the study. It provided detailed explanations and justification of the research design and the different procedures and methods elicited for data collection and treatment. Although both of the approaches used are highlighted in this chapter, the account regarding the research means by virtue of which data was collected provided full allowance for the quantitative instrument (questionnaire) while the qualitative tool (interview) is only broadly introduced, leaving the big show for chapter VI in which the results are analyzed. A full section in the present chapter is dedicated to the statistical procedure adopted in the frames of the work to get a fix on how the data is treated. Following this chapter is the empirical part of the study, where two types of information data gathering methods were employed. Initially, information was gathered via a questionnaire from two different multinationals; and to get a wider picture of the situation, data was then collected through in-depth interviews from four different Algerian-based companies. The questionnaire results and the interview results are first analyzed in an independent chapter each, then the results analyses of both chapters were brought side by side and discussed together in a separate chapter of its own, to draw on a better understanding of the effects of linguistic diversity in multinationals operating in Algeria.

Chapter Five

Questionnaire Data Analysis

5.1. Introduction

The main focus of this study is to examine the role of language diversity for employees working in multinational corporations operating in Algeria. For this purpose the present chapter is concerned with the statistical analysis of the questionnaire data. The data was collected from two samples comprising a total of 70 employees together, from two different multinational companies operating in the south of Algeria, one of the concerns is Chinese (31 participants) and the other is French (39 participants). The results obtained from the two samples are to be compared with each other in order to gauge the language practices and measure the linguistic realities amid the firms. The data was treated using SPSS and the comparison of the results was carried out by dint of the Chi-square test of independence. Therefore, the role of language diversity is investigated in virtue of the degrees of use of the different workplace languages in the various situations within and across both multinationals.

5.2. Analysis of Results

For putting in perspective the four basic formulae discussed in Chapter IV, the first initiation of undertaking the analysis is to apply the model through a step-by-step computation procedure. The conduct shall be carried out on the first item question only in order to show what the analysis looks like behind the scenes as of when the SPSS is involved, because the latter solely serves as a shorthand tool of the tedious tasks of the recurrent calculations, demonstrating the net gross sum of the output results for discussion. The questions provided a collection of different options each, out of which either one or several can be selected at the same time by the same participant. And because the questions are of a multiple-choice type, the items are tackled, here, as if a

separate variable on their own each; this is recognized as necessary for an appropriate coding, insertion and processing of the data in the statistical software used (SPSS).

Part One: Multiple Choice Questions

1. ***How do you react if a conversation in your company is held in a language you do not fully understand? (Please tick all that apply)***

The procedure to be relied on in calculating the Chi-square and its related tenets is organized in eight (8) steps:

1. The test statistic is calculated according to formula (I) introduced in the previous chapter;
2. Examining if assumption violated;
3. Degrees of freedom (*df*) are found;
4. Alpha (α) level of significance is decided;
5. The decision rule is stated;
6. Results are read off to report the statistical significance of the differences;
7. Size effect is calculated and compared to critical values of the effect level; and
8. Conclusions are made about the relationships in question whether or not they are merely a product of chance.

N.B. *Noteworthy, these standard steps are useful through the whole questionnaire items analysis and will have tacitly been kept in process in the same manner of organization throughout.*

Back to item question one from the questionnaire then, to decide upon the strategic reaction(s) of multinational employees when a conversation is held in a language they have a hard time understanding in the case business contexts, a comparative step is made by running the statistics in recourse to the mathematical models described in Chapter IV.

Formula (I) indicates that $x^2 = \sum (f_0 - f_e)^2 / f_e$

Table 2 below provides the f_o of whether or not the item is ticked:

Table 2

Classification of Observed Case Frequencies of Engagement in Conversation Despite Lack of Mastery of the Language Used by Participants per Company

	Actual observed counts of engagement in conversation despite lack of mastery of the Language Used per company		Total
	Unticked	Ticked	
Chinese multinational	11	20	31
French multinational	34	5	39
Total	45	25	70

As to f_e, $f_e = \frac{f_c f_r}{n}$; consulting Table 2a above, for the expected frequencies of the participants who ticked this option in each of the companies, it is found that

$f_{e\text{-Chin.}mult.} = \frac{25 \times 31}{70}$

$f_{e\text{-}Chin.mult.} = 11.07$

$f_{e\text{-}Fr.mult.} = \frac{25 \times 39}{70}$

$f_{e\text{-}Fr.mult.} = 13.92$

Following this same manner of calculation of frequencies for when the option is not ticked, the output gives the results, along their respective subtracts of squared values between the observed*s* and expected*s* (in between parentheses), shown in Table 3.

Table 3

Classification of Expected Case Frequencies of Engagement in Conversation despite Lack of Mastery of the Language Used by Participants per Company

	Expected Counts of Engagement in Conversation despite Lack of Mastery of the Language Used per Company	
	Unticked	Ticked
Chinese multinational	19.92 (79.56)	11.07 (79.74)
French multinational	25.07 (79.74)	13.92 (79.56)

Deductively from formula (I), a Chi-square for each cell of the frequencies shown in the tables 2 and 3 may be calculated using $x^2_{Chin.} = (f_{o\ Chin.} - f_{e\ Chin.})^2 / f_{e\ Chin.}$ for the first row of values and $x^2_{Fr.} = (f_{oFr.} - f_{eFr.})^2 / f_{eFr.}$ for the second row. By adding up together the summations of x^2s for each row of the values, a total Chi-square for both samples using formula (I) would be:

$$x^2 = \sum (f_0 - f_e)^2 / f_e$$

$$x^2 = 3.99 + 7.2 + 3.18 + 5.71$$

$$x^2 = 20.08$$

***Remark**: the SPSS gives approximately the same results ($x^2 = 20.104$) as obtained through hand-and-calculator results ($x^2 = 20.08$). Knowingly, SPSS is carrying out a very minute calculation keeping the additions of all decimals together, while the calculations held by hand give out rounded values.*

Before checking with the validity procedure of the Chi-square assumption violation condition, it is the point to check for the significance level. To do that, the degrees of freedom (*df*) are found out of formula (II), thus,

$df = (R - 1)(C - 1)$

$df = 1$

That the Chi-square is $x^2 = 20.09$ and the *df = 1*, checking Table 1, with $\alpha = 0.05$, it is found that the relevant critical value is 3.84. Therefore, $x^2 = 20.08 > 3.84$.

So to report the results for the Chi-square for this first item of the question, it is apparent that at the 0.05 level, the calculated value surpasses the critical value, leading to conclude that the variables under discussion are in a relationship of dependence on each other and this can by no means be an outcome of chance.

In consideration of validity, it is readily noticed with reference to Table 2b that neither case has expected counts below five (5), representing 0% of the total, meaning that the assumption that only less or equal to 20% of the cases may have expected counts less than five (5) in order that the x^2 is the valid statistic to rely is not violated.

Now that the assumption is not violated, and that the correlation is proven to be statistically significant, consideration should then be due to the strength of the effect. How strong the association is is something to be revealed by the effect coefficient.

From page Chapter 4, we conjure up the formula (III) for phi:

$$\emptyset = \sqrt{\frac{x^2}{n}}$$

$$\emptyset = \sqrt{\frac{20.09}{70}}$$

$$\emptyset = 0.53$$

Restricting the $\emptyset$ makes $0.53 > 0.5$, signifying that the extent of the strength of dependence between the variables under consideration is of a *large effect*, which is very

meaningful. Said differently, it is found that whether the reaction of employees, in both multinationals, in a situation where conversation is held in a language they struggle to understand reflects in engaging in the communication anyway differs from one company to the other. To take this further, since the statistical tests give evidence of the positive relationship of engagement in the interaction despite lack of mastery of the language at play to the corporation in which it is used, as evinced on Table 4, the greatness of the difference in the results transpires. Engaging in the communicative event despite poor skills in the language of the verbal exchange is reported to be a fact for a considerable majority of the Chinese company workforce (64.5%) while a tiny minority case among the French company labor force.

Table 4

Percentage Cases of Engagement In Conversation despite Lack of Mastery of the Language Used by Company

	Unticked	Ticked	Total
Algerian multinational	35.5%	64.5%	100%
Foreign multinational	87.2%	12.8%	100%

Having finished with the first question item with exhaustiveness in statistical standards and measures, it is the turn for the second item (item b) to go, following the same process but directly taking only the end results apart from redundantly indulging into similar stuffed details and gradational calculations of statistical tests, coefficients, etc; hence skipping all the step by step procedures for the final outcome, this is especially because this item has nothing new to offer in terms of the individual quantitative variable values for the statistical units compared with what is allowed for in the first item.

Table 5 below represents the observed case frequencies, along with the corresponding percentages, for the alternative reaction of asking for an interpretation/explanation when a conversation in the workplace runs in a language employees find hardship comprehending.

Table 5

Classification of Observed Case Frequencies and percentages of asking for an interpretation when a workplace conversation is held in an unintelligible language by Participants per Company

	Actual observed counts and percents of *asking for an interpretation when a workplace conversation is held in an unintelligible language* per company		Total
	Unticked	Ticked	
Chinese multinational	1	30	31
	3.22%	96.68%	100%
French multinational	12	27	39
	30.77%	69.23%	100%
Total	13	57	70
	18.57%	81.43%	100%

Following the same steps and formula, concerned with calculating the expected counts, alongside their corresponding subtracts of squared values between the observed and expected frequencies put in parentheses, adopted in the former item, the outcome can be tabulated as follows:

Table 6

Classification of Expected Case Frequencies of Asking for an Interpretation When a Workplace Conversation Is Held an an Unintelligible Language by Participants per Company

	Expected counts of *asking for an interpretation when a workplace conversation is held in an unintelligible language* per company	
	Unticked	Ticked
Chinese multinational	5.75 (22.56)	25.24 (637.05)
French multinational	7.24 (52.41)	31.75 (1008.06)

Our calculations demonstrate the following values: $x^2 = 8.25$; $df = 1$; $\emptyset = 0.34$. With $\alpha = 0.05$, it is deduced from critical values of the X^2 distribution table that $8.25 > 3.84$, so that there is strong evidence that *asking for an interpretation when a workplace conversation is held in an unintelligible language* difference between individuals in both companies is statistically significant. On the other hand, the *phi* effect size restriction $0.5 > 0.34 > 0.3$ signifies a medium effect. Examining Table 5, it is apparent that a large majority of 69.23% of the sample subjects in the French company have declared to seek translation of the talk content delivered in a language beyond their understanding which compares to the vast majority of 96.68% of the surveyed elements in the Chinese company. It is obvious that the overwhelming majority of the respondents resort to someone for explanation when an interaction proceeds in a language they lack skill in.

Now comes the turn of the third item (item c). In the following table are the observed counts along with their respective percentages:

Table 7

Classification of Observed Cases and Percentages of Leaving the Scene When a Conversation is Conducted in an Incomprehensible Language by Participants per Company

	Actual observed counts and percents of leaving the scene in case a conversation is conducted in an incomprehensible language to the employee per company		Total
	Unticked	Ticked	
Chinese multinational	28	3	31
	90.32%	9.68%	100%
French multinational	35	4	39
	89.74%	10.26%	100%
Total	63	7	70
	90%	10%	100%

The next table demonstrates the expected counts and the related squares of the difference between the expected and observed frequencies parenthesised:

Table 8

Classification of Expected of Leaving the Scene When a Conversation is Conducted in an Incomprehensible Language by Participants per Company

	Expected counts of leaving the scene in case a conversation is conducted in an incomprehensible language	
	Unticked	Ticked
Chinese multinational	27.9 (0.01)	3.1 (0.01)
French multinational	35.1 (0.01)	3.9 (0.01)

For item c, $x^2 = 0.006$. With one degree of freedom and $\alpha = 0.05$, it is deduced from critical values of the X^2 distribution table that $0.006 < 3.84$, indicating no statistically significant association for leaving the scene in case a conversation is conducted in an incomprehensible language to the employee.

Table 9 below accounts for the quantitative variable values for the statistical units of the final item in this question:

Table 9

Classification of Observed and Expected Case Frequencies and Percentages of Making a Low Profile when a Conversation Is Conducted in an Incomprehensible Language by Participants per Company

	Actual observed counts and percents of making a low profile when a conversation is conducted in an incomprehensible language per company		Total
	Unticked	Ticked	
Chinese multinational	29	2	31
	29.22	1.77	31
	93.55%	6.45%	100%
French multinational	37	2	39
	36.77	2.22	39
	94.87%	5.13%	100%
Total	66	4	70
	66	4	70
	94.29%	5.71%	100%

With one degree of freedom it is clearly noted that at $\alpha = 0.05$ level, the Chi-square $0.055 < 3.84$, communicating no statistically significant relationship between the variables under consideration. The analysis cannot be dragged any further with the insignificance of the relatedness of variables put in place.

Now that confusion is cleared as to the statistical mechanisms underlying the entire process of going about determining and calculating the standards, measures, coefficients and procedures as seen fit, the subsequent text all throughout the chapter will be going straight to reading off the statistics and deriving the results. For that matter, for purposes of consistency check-up and to quench the curiosity of comparison between hand-based calculations and software data processing, and to justify what the short-cut end-result statistics look like when processed in recourse to SPSS, the following tables constitute a sum up of the whole range of results previously purposefully conducted separately in stages for each item by hand.

It is important to note that the slight differences in the outcomes of the statistical results reported in terms of the decimal disparities for some cases goes to the fact that SPSS rounds numbers off while the researcher considers merely two decimals inconsiderate of approximation. Table 10 collects the different frequencies (observed and expected) as well as the percentages for the multiple question options, with their respective totals for each sample with regard to the corresponding multinational of affiliation. Table 11 gathers the resultant Chi-Square Tests and Symmetric Measures of the question items set. Giving up the hand work, such corss-tabulations obtained from the SPSS output will be the standard norm along the remaining questions of the questionnaire survey, but with due detailing of processing procedures of any new statistical measures/coefficients when necessary, as the case maybe.

Table 10

Multinationals Crosstabulation for Question 1

Item➔		Item a		Total	Item b		Total	Item c		Total	Item d		Total
Multinational status ➔		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	11	20	31	1	30	31	28	3	31	29	2	31
	f_e	19.9	11.1	31.0	5.8	25.2	31.0	27.9	3.1	31.0	29.2	1.8	31.0
	%	35.5%	64.5%	100%	3.2%	96.8%	100%	90.3%	9.7%	100%	93.5%	6.5%	100%
French	f_o	34	5	39	12	27	39	35	4	39	37	2	39
	f_e	25.1	13.9	39.0	7.2	31.8	39.0	35.1	3.9	39	36.8	2.2	39.0
	%	87.2%	12.8%	100%	30.8%	69.2%	100%	89.7%	10.3%	100%	94.9%	5.1%	100%
Total	f_o	45	25	70	13	57	70	63	7	70	66	4	70
	f_e	45.0	25.0	70.0	13.0	57.0	70.0	63.0	7.0	70.0	66.0	4.0	70.0
	%	64.3%	35.7%	100%	18.6%	81.4%	100%	90%	10%	100%	94.3%	5.7%	100%

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.07.

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.76.

b. Computed only for

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.10.

b. Computed only

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 1.77.

b. Computed only for a 2x2 table	a 2x2 table	for a 2x2 table	b. Computed only for a 2x2 table

Table 11

The Respective Statistics of Significance and Effect for Question 1

	df	x^2	L.r	F.t	∅	*V*
Item a	1	20.104	21.051	.000	-.536	.536
Item b	1	8.664	10.213	.004	-.352	.352
Item c	1	.006	.006	1.000	.010	.010
Item d	1	.056	.056	1.000	.028	.028

2. *What do you do when you realize that you are speaking in a language your mates find difficult to understand? (please tick all that apply)*

Table 12

The Respective Statistics of Significance and Effect for Question 2

	df	x^2	L.r	F.t	∅	*V*
Item a	1	1.276	1.647	.443	-.135	.135
Item b	1	12.690	17.545	.000	.426	.426
Item c	1	29.338	34.867	.000	-.647	.647
Item d	1	16.486	22.454	.000	-.485	.485
Item e	1	24.018	29.798	.000	-.586	.586
Item f	1	1.751	1.812	.237	-.158	.158
Item g	1	2.347	2.367	.152	.183	.183

Table 13

Multinationals Crosstabulation for Question 2

Item➔		Item a			Item b			Item c			Item d			Item e			Item f		
Multinational ➔ status		Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total
Chinese	f_o	30	1	31	31	0	31	1	30	31	0	31	31	16	15	31	4	27	31
	f_e	30.6	.4	31.0	25.2	5.8	31.0	12.0	19.0	31.0	7.1	23.9	31.0	24.4	6.6	31.0	6.2	24.8	31.0
	%	96.8%	3.2%	100%	100%	0.0%	100%	3.2%	96.8%	100%	0.0%	100%	100%	51.6%	48.4%	100%	12.9%	87.1%	100%
French	f_o	39	0	39	26	13	39	26	13	39	16	23	39	39	0	39	10	29	39
	f_e	38.4	.6	39.0	31.8	7.2	39.0	15.0	24.0	39.0	8.9	30.1	39.0	30.6	8.4	39.0	7.8	31.2	39.0
	%	100%	0.0%	100%	66.7%	33.3%	100%	66.7%	33.3%	100%	41.0%	59.0%	100%	100%	0.0%	100%	25.6%	74.4%	100%
Total	f_o	69	1	70	57	13	70	27	43	70	16	54	70	55	15	70	14	56	70
	f_e	69.0	1.0	70.0	57.0	13.0	70.0	27.0	43.0	70.0	16.0	54.0	70.0	55.0	15.0	70.0	14.0	56.0	70.0
	%	98.6%	1.4%	100%	81.4%	18.6%	100%	38.6%	61.4%	100%	22.9%	77.1%	100%	78.6%	21.4%	100%	20.0%	80.0%	100%

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .44. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.76. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.96. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.09. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.64. b. Computed only for a 2x2 table	. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.20. b. Computed only for a 2x2 table

For item a, because the Chi-square assumption rule is violated in that 2 cells (50%) have expected count less than 5 while computed for a 2x2 table, the Fiher's exact test is the appropriate substitute of the Chi-square. As such, with F.t = $0.443 > 0.05$, it is deduced that there is no statistically significant dependence between keeping on speaking in the same language after realizing that fellow workers find it difficult to understand and the engaging company of the respondents.

- *Item b:* there is strong evidence of statistically significant dependence of addressing the respective issue to whom it concerns in a language they understand on the company status ($x^2 = 12.690 > 3.84$); this correlation is of a medium effect ($0.30 < 0.426 < 0.5$). Such moderate dependence is demonstrated by the percent values in that no employees from the Chinese company address the subject-matter to the concerned party in a language they understand after realizing that they are speaking in a language the latter find difficult to comprehend (0%), while a small portion of responses in the French company (33.3%) communicates a slight tendency towards explaining the matter of concern to the persons involved in the tongue they understand.
- *Item c:* a large association between code-switching according to the issue of interest, when some work team members are found struggling to understand what is being communicated in some language, and the company status is apparent ($29.338 > 3.84$; $0.647 > 0.5$). There is a substantially much more alternation between languages respective of the issue of concern by the Chinese company employees (96.8%) than the French company workers (33.3%).
- *Item d*: there is a strong statistically significant association between resorting to translation into some language after having addressed the issue in a language some

fellow employees do not understand and each company (16.486> 3.84). This relationship is of a medium effect since 0.30 <0.485< 0.5. It is clearly noted from Table 3d that the sample of employees from the Chinese company in its entirety reports interpreting what is communicated in one language into another understood by those unable to understand the tongue initially used (100%) as compared to the large majority in the French company (59.0%).

- *Item e:* shifting to another language that is understood by everyone, despite lack of appropriate command of it on the part of the speaker, proves to bear a statistically significant dependence on the respective company of work (24.018 >3.84; 0.586 > 0.5). Accordingly, switching of employees to a language they lack sufficient competence in, and which virtually everyone else in the workplace understands, is not an option in the first place for the French multinational participant employees as it is represented with a null percentage (0%); in opposition to the bare minority of respondent workers from the Chinese company (48.4%) whom deem this alternative good enough a resort for messages-share.
- *Item f: that* 1.751 < 3.84, no statistically significant dependence between making a shift to a language that is understood by the majority, after realizing that some colleague workers are at disadvantage to make sense of the talk subject in the language initially used, and the company of employment can be reported. The association is thus statistically insignificant. The likelihood of opting for this very strategy among employees is noted to be very high in the statistics about both corporations, non the less: the Chinese with 87.1% and its French counterpart with 74.4%.

3. *Which of the following languages is/are used in the following meetings?(Please tick all that apply)*

Item a: work team briefings

Value differences of the languages used for work team briefings in both firms are discernible on Table 14. Both Arabic and English are communicated at a majority level as languages of small workplace crew meetings in both companies (Arabic scored 77,4% and 92,3%, when English recorded 96,8% and 89,7% in the Chinese company and the French corporation sequentially). Chinese is expressed at a 93,5% majority in the Chinese company whereas French is represented by a 30,8% minority in the French concern; Chinese is entirely absent in the latter company and French is positioned out of any favourability in the former (neither language obtained any subscribers in the other corresponding company: 0%). The opposite views of workers in both companies towards the languages used in briefings are checked against by means of Chi-square tests calculations. In the case of Chinese and French languages, the expressed views are not a mere incidence of chance (*df*=1, $\alpha = 0.05 \rightarrow 62.290$ and 11.512 , respectively, are obviously greater than 3.84); the association transpires to be highly strong for Chinese ($0.943 > 0.5$) and of a medium strength for French ($0.30 < 0.406 < 0.5$). For Arabic and English, reading Fisher's test in place of the Chi-square as the assumption rule of only equal to or less than 20% of the cases can have expected count inferior to 5 is violated, the relationship proves statistically insignificant with the respective Ficher's test output values clearly exceding the level of significance (0.096 and 0.374 are observably greater than 0.05 for each tongue respectively).

Table 14

Multinationals Crosstabulation for Item a (Question 3)

Item➔		Arabic			English			Chinese			French		
Multinational	⬇status	Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total
Chinese	f_o	7	24	31	1	30	31	2	29	31	31	0	31
	f_e	4.4	26.6	31.0	2.2	28.8	31.0	18.2	12.8	31.0	25.7	5.3	31.0
	%	22.6%	77.4%	100%	3.2%	96.8%	100%	6.5%	93.5%	100%	100%	0.0%	100%
French	f_o	3	36	39	4	35	39	39	0	39	27	12	39
	f_e	5.6	33.4	39.0	2.8	36.2	39.0	22.8	16.2	39.0	32.3	6.7	39.0
	%	7.7%	92.3%	100%	10.3%	89.7%	100%	100%	0.0%	100%	69.2%	30.8%	100%
Total	f_o	10	60	70	5	65	70	41	29	70	58	12	70
	f_e	10.0	60.0	70.0	5.0	65.0	70.0	41.0	29.0	70.0	58.0	12.0	70.0
	%	14.3%	85.7%	100%	7.1%	92.9%	100%	58.6%	41.4%	100%	82.9%	17.1%	100%
		a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.43.			a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.21. b. Computed only for			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.84. b. Computed only			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.31. b. Computed only		

b. Computed only for a 2x2 table	a 2x2 table	for a 2x2 table	for a 2x2 table

Table 15

The Respective Statistics of Significance and Effect for Item a (Question 3)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	3.127	3.146	.096	.211	.211
English	1	1.287	1.396	.374	-.136	.136
Chinese	1	62.290	80.142	.000	-.943	.943
French	1	11.512	15.995	.001	.406	.406

Item b: Rig work team meetings

Table 16

The Respective Statistics of Significance and Effect for Item b (Question 3)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	.035	.035	1.000	.022	.022
English	1	28.247	34.925	.000	.635	.635
Chinese	1	70.000	96.124	.000	-1.000	1.000
French	1	9.274	13.013	.002	.364	.364

At a level of significance $\alpha = 0.05$ and a degree of freedom$df = 1$, the Chi-square critical value $X^2 = 3.84$, the results obtained are successively examined for each item; therefore,

Table 17

Multinationals Crosstabulation for Item b (Question 3)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational ⬇status		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	15	16	31	17	14	31	0	31	31	31	0	31
	f_e	14.6	16.4	31.0	7.5	23.5	31.0	17.3	13.7	31.0	26.6	4.4	31.0
	%	48.4%	51.6%	100%	54.8%	45.2%	100%	0.0%	100%	100%	100%	0.0%	100%
French	f_o	18	21	39	0	39	39	39	0	39	29	10	39
	f_e	18.4	20.6	39.0	9.5	29.5	39.0	21.7	17.3	39.0	33.4	5.6	39.0
	%	46.2%	53.8%	100%	0.0%	100%	100%	100%	0.0%	100%	74.4%	25.6%	100%
Total	f_o	33	37	70	17	53	70	39	31	70	60	10	70
	f_e	33.0	37.0	70.0	17.0	53.0	70.0	39.0	31.0	70.0	60.0	10.0	70.0
	%	47.1%	52.9%	100%	24.3%	75.7%	100%	55.7%	44.3%	100%	85.7%	14.3%	100%
		a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.61. b. Computed only for a 2x2 table			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.53. b. Computed only for a 2x2 table			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.73. b. Computed only for a 2x2 table			a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.43. b. Computed only for a 2x2 table		

- *Arabic*: there is no statistically significant dependence between the Arabic language use with a specific company in rig work team meetings ($0.035 < 3.84$). Meanwhile, a slight majority of respondents in both companies (51.6% for the Chinese company, and 53.8% for the French company) expressed there is use of Arabic in this kind of meetings.

- *English:* there is strong evidence of statistically significant dependence of the degree of using English for rig work team meetings on the company status ($28.247 > 3.84; 0.635 > 0.5$). Such high dependence is attended to by the percentages as a sizeable minority (45.2%) of the Chinese company staff sample confirm that English is used for meetings in the rigs as compared to the whole sample (100%) of the French company employees who asserted of the English language employment in these encounters.

- *Chinese:* an extremely large, rather perfect, association between the use of Chinese for rig meetings and the company status is apparent ($70 > 3.84;\ 1 > 0.5$). Chinese is obviously importantly used in the Chinese company but is understandably absent in a non-Chinese company.

- *French:* there is a medium statistically significant association between French use and the respective company of the respondents ($0.002 < 0.05$; ($0.30 < 0.364 < 0.5$). Surprisingly, while useless in the Chinese company, French is of a reported limited room in use even in the French company (25.6%).

If Arabic and English excel as rig work team meetings' leading languages in both multinationals, besides Chinese in the Chinese company, French appears to run out of luck among employees.

Item c: Management staff meetings

Table 18

Multinationals Crosstabulation for Item c (Question 3)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	⬇status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	28	3	31	1	30	31	0	31	31	31	0	31
	f_e	25.2	5.8	31.0	.4	30.6	31.0	17.3	13.7	31.0	27.9	3.1	31.0
	%	90.3%	9.7%	100%	3.2%	96.8%	100%	0.0%	100%	100%	100%	0.0%	100%
French	f_o	29	10	39	0	39	39	39	0	39	32	7	39
	f_e	31.8	7.2	39.0	.6	38.4	39.0	21.7	17.3	39.0	35.1	3.9	39.0
	%	74.4%	25.6%	100%	0.0%	100%	100%	100%	0.0%	100%	82.1%	17.9%	100%
Total	f_o	57	13	70	1	69	70	39	31	70	63	7	70
	f_e	57.0	13.0	70.0	1.0	69.0	70.0	39.0	31.0	70.0	63.0	7.0	70.0
	%	81.4%	18.6%	100%	1.4%	98.6%	100%	55.7%	44.3%	100%	90.0%	10.0%	100%
		a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.76. b. Computed only for a 2x2 table			a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .44. b. Computed only for a 2x2 table			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.73. b. Computed only for a 2x2 table			a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.10. b. Computed only for a 2x2 table		

The exploitation of Arabic and English in meetings at the management level appears of no statistically significant relatedness to the company of affiliation, as it is clearly evinced by the Chi-square value for Arabic (2.911) being less than the critical value (3.84) and the Fisher's extact test for English being way beyond the alpha level of significance (0.05). Arabic is of poor standing in the meetings involving management personnel in both companies; although somehow higher in use in the circumstances within the French company but that still remains insignificant a status: 9.7% of participants in the Chinese multinational in comparison with 25.6% of respondents in the French multinational viewed the language positively. English, on the other hand, is lavishly used for this sort of meetings in both settings: almost the whole sample from the Chinese company (96.8%) compared to the full rate of the participants from the French company (100%) declared this language to be in use.

In the meantime, an association with a statistical significance between the usage of the Chinese and French languages and the relevant company is obvious; as 70 greatly transcends the critical value, with /-1/ > 0.5, Chinese is of a negatively large, rather perfect, effect, while French is of a small-to-medium size effect since 0.015 is less than 0.05 and 0.297 is almost equal to 0.30. Accordingly, while the entire sample from the Chinese company attests to use of Chinese for meetings concerning the company's management staff, French is put to shame in comparison, with merely a tiny bit over a sixth (17.9%) of the respondents' number testifying to its exploitation for this purpose in the French company.

Table 19

The Respective Statistics of Significance and Effect for Item c (Question 3)

	df	x^2	L.r	F.t	∅	*V*
Arabic	1	2.911	3.078	.124	.204	.204
English	1	1.276	1.647	.443	.135	.135
Chinese	1	70.000	96.124	.000	-1.000	1.000
French	1	6.182	8.804	.015	.297	.297

Item d: Company expanded meetings

Table 20

Multinationals Crosstabulation for Item d (Question 3)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	⬇status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	5	26	31	1	30	31	22	9	31	31	0	31
	f_e	10.6	20.4	31.0	1.3	29.7	31.0	27.0	4.0	31.0	23.5	7.5	31.0
	%	16.1%	83.9%	100%	3.2%	96.8%	100%	71.0%	29.0%	100%	100%	0.0%	100%
French	f_o	19	20	39	2	37	39	39	0	39	22	17	39
	f_e	13.4	25.6	39.0	1.7	37.3	39.0	34.0	5.0	39.0	29.5	9.5	39.0
	%	48.7%	51.3%	100%	5.1%	94.9%	100%	100%	0.0%	100%	56.4%	43.6%	100%
Total	f_o	24	46	70	3	67	70	61	9	70	53	17	70
	f_e	24.0	46.0	70.0	3.0	67.0	70.0	61.0	9.0	70.0	53.0	17.0	70.0
	%	34.3%	65.7%	100%	4.3%	95.7%	100%	87.1%	12.9%	100%	75.7%	24.3%	100%

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.63. b. Computed only for a 2x2 table	a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 1.33. b. Computed only for a 2x2 table	a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.99. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.53. b. Computed only for a 2x2 table

Table 21

The Respective Statistics of Significance and Effect for Item d (Question 3)

	df	x^2	L.r	F.t	∅	V
Arabic	1	8.141	8.576	.005	-.341	.341
English	1	.152	.156	1.000	-.047	.047
Chinese	1	12.993	16.361	.000	-.431	.431
French	1	17.847	24.186	.000	.505	.505

Flicking through Table 21, the values 8.141 and 17.847, in this order, them surpassing 3,84, reflect a large statistical significant dependence of using Arabic and French in the company expanded meetings and the pertinent concern, with a medium effect for Arabic (since 0.341 is bigger than 0.3 and lesser than 0.5) and a strong effect for French ($0.505 > 0.50$). Such a relationship is statistically insignificant for English (F.t = 1 is far beyond 0.05), but is extremely largely significant for Chinese (as F.t = 0 is obviously less than 0.05). In the language of percentages, English harvested a lion's share of the vote as a language being made use of in the big meetings of the firms (96.8% in the Chinese and 94.9% in the French), Arabic scored a large majority (83.9%) in the Chinese company and

a narrow majority (51.3%) in the French company; French is expressed at a significant minority (43.6%) restrictively for the French company, and Chinese is merely slightly useful only in the case of the Chinese company at the rate of 29%.

Item e: Meetings with the company man

Table 22

Multinationals Crosstabulation for Item e (Question 3)

Item➔		Arabic			English			Chinese			French		
Multinational ↓status		Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total
Chinese	f_o	1	30	31	7	24	31	29	2	31	31	0	31
	f_e	2.2	28.8	31.0	4.4	26.6	31.0	30.1	.9	31.0	22.1	8.9	31.0
	%	3.2%	96.8%	100%	22.6%	77.4%	100%	93.5%	6.5%	100%	100%	0.0%	100%
French	f_o	4	35	39	3	36	39	39	0	39	19	20	39
	f_e	2.8	36.2	39.0	5.6	33.4	39.0	37.9	1.1	39.0	27.9	11.1	39.0
	%	10.3%	89.7%	100%	7.7%	92.3%	100%	100%	0.0%	100%	48.7%	51.3%	100%
Total	f_o	5	65	70	10	60	70	68	2	70	50	20	70
	f_e	5.0	65.0	70.0	10.0	60.0	70.0	68.0	2.0	70.0	50.0	20.0	70.0
	%	7.1%	92.9%	100%	14.3%	85.7%	100%	97.1%	2.9%	100%	71.4%	28.6%	100%
		a. 2 cells (50.0%) have expected count less than 5. The minimum			a. 1 cells (25.0%) have expected count less than 5. The minimum			a. 2 cells (50.0%) have expected count less than 5. The minimum			a. 0 cells (0.0%) have expected count less than 5. The minimum		

expected count is 2.21. b. Computed only for a 2x2 table	expected count is 4.43. b. Computed only for a 2x2 table	expected count is .89. b. Computed only for a 2x2 table	expected count is 8.86. b. Computed only for a 2x2 table

Table 23

The Respective Statistics of Significance and Effect for Item e (Question 3)

	df	x^2	L.r	F.t	∅	*V*
Arabic	1	1.287	1.396	.374	-.136	.136
English	1	3.127	3.146	.096	.211	.211
Chinese	1	2.590	3.332	.193	-.192	.192
French	1	22.256	29.718	.000	.564	.564

Table 22 demonstrates a violation of the assumption for the three first languages (Arabic, English and Chinese); dropping the reading of Chi-square, on that account, in favour of the Fisher's test, it is clear that the corresponding values of the latter for each language is greater than the level of significance (0.374, 0.096 and $0.193 > 0.05$) which bears evidence that there is no statistically significant relatedness between the use of these languages in meetings with company man and the multinational of belongingness.

Apart from that, the use of French for meetings with company man is represented to have a highly strong statistically significant relationship with the multinational of affiliation as $22.256 > 3.84$ and $0.564 > 0.50$.

In terms of ratios, Arabic proves to be at a great most majority level a language of meetings with company man in both enterprises (96.8% for the Chinese and 89.7% in the French), English too is of a majority view a language of these types of meetings in both companies (a 77.4% majority in the Chinese company and a 92.3% majority for the

French firm), Chinese is of a marginal and much less use in the Chinese company for the meetings of this kind (6.5%) while entirely absent in the counterpart corporation, and French is expressed to be a language used for such meetings only in the French company with a slim majority (51.3%).

Item f: Meetings with the employees of another multinational

Table 24

Multinationals Crosstabulation for Item f (Question 3)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	⬇status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	3	28	31	19	12	31	23	8	31	31	0	31
	f_e	3.1	27.9	31.0	11.1	19.9	31.0	27.5	3.5	31.0	27.9	3.1	31.0
	%	9.7%	90.3%	100%	61.3%	38.7%	100%	74.2%	25.8%	100%	100%	0.0%	100%
French	f_o	4	35	39	6	33	39	39	0	39	32	7	39
	f_e	3.9	35.1	39.0	13.9	25.1	39.0	34.5	4.5	39.0	35.1	3.9	39.0
	%	10.3%	89.7%	100%	15.4%	84.6%	100%	100%	0.0%	100%	82.1%	17.9%	100%
Total	f_o	7	63	70	25	45	70	62	8	70	63	7	70
	f_e	7.0	63.0	70.0	25.0	45.0	70.0	62.0	8.0	70.0	63.0	7.0	70.0
	%	10.0%	90.0%	100%	35.7%	64.3%	100%	88.6%	11.4%	100%	90.0%	10.0%	100%
		a. 2 cells (50.0%) have expected count less than 5. The minimum			a. 0 cells (0.0%) have expected count less than 5. The minimum expected			a. 2 cells (50.0%) have expected count less than 5. The minimum expected			a. 2 cells (50.0%) have expected count less than 5. The minimum expected		

expected count is 3.10. b. Computed only for a 2x2 table	count is 11.07. b. Computed only for a 2x2 table	count is 3.54. b. Computed only for a 2x2 table	count is 3.10. b. Computed only for a 2x2 table

Table 25

The Respective Statistics of Significance and Effect for Item f (Question 3)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	.006	.006	1.000	-.010	.010
English	1	15.853	16.378	.000	.476	.476
Chinese	1	11.363	14.350	.001	-.403	.403
French	1	6.182	8.804	.015	.297	.297

When $df = 1$ and $\alpha = 0.05$, the critical chi-square is $X^2 = 3.84$ and critical $\emptyset$ is $0.30 < \emptyset < 0.5$ for a medium effect. Therefore, using the results obtained in tables above and by means of comparing the calculated Chi-square values to the critical value, the statistics show that there is a statistically significant relationship between English as a language of communication in meetings with employees from a different multinational corporation and the multinational company they work for (15.853), with a detectable medium effect of dependence (0.476).

Because the assumption is violated for the other languages, Fisher's exact test is brought into action instead. The relationship is not statistically significant in the case of Arabic: 1. But it is statistically significant, with a medium effect, for both Chinese (0.001, -0.403) and French (0.015, 0.297).

Arabic is said to be the language most used for interaction with counterparts from other firms with a 90.3% majority in the Chinese corporation and 89.7% for the French company. Next in the proportion of use is English with a substantial majority (84.6%) in the French company and a considerable minority in the Chinese (38.7%). Chinese is declared by only a quarter of the Chinese company sample to be the language used for encounters with other employees outside the company. Only 17.9% of the French company respondents are of the belief that French is used in the situation.

4. *In the company, which language(s) is/are used in the following cases/instances/?(Please tick all that apply)*

Item a: Computer programs

Table 26

Multinationals Crosstabulation for Item a (Question 4)

Item➔		Arabic			English			Chinese			French		
Multinational		Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total
Chinese	f_o	25	6	31	1	30	31	2	29	31	31	0	31
	f_e	24.4	6.6	31.0	.4	30.6	31.0	18.2	12.8	31.0	24.4	6.6	31.0
	%	80.6%	19.4%	100%	3.2%	96.8%	100%	6.5%	93.5%	100%	100%	0.0%	100%
French	f_o	30	9	39	0	39	39	39	0	39	24	15	39
	f_e	30.6	8.4	39.0	.6	38.4	39.0	22.8	16.2	39.0	30.6	8.4	39.0

	%	76.9%	23.1%	100%	0.0%	100%	100%	100%	0.0%	100%	61.5%	38.5%	100%
Total	f_o	55	15	70	1	69	70	41	29	70	55	15	70
	f_e	55.0	15.0	70.0	1.0	69.0	70.0	41.0	29.0	70.0	55.0	15.0	70.0
	%	78.6%	21.4%	100%	1.4%	98.6%	100%	58.6%	41.4%	100%	78.6%	21.4%	100%
		a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.64. b. Computed only for a 2x2 table			a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .44. b. Computed only for a 2x2 table			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.84. b. Computed only for a 2x2 table		a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.64. b. Computed only for a 2x2 table	

Table 27

The Respective Statistics of Significance and Effect for Item a (Question 4)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	.142	.143	.776	.045	.045
English	1	1.276	1.647	.443	.135	.135
Chinese	1	62.290	80.142	.000	-.943	.943
French	1	15.175	20.771	.000	.466	.466

Arabic: with $x^2 = 0.142$ being insignificantly small at 0.05 level considering a single degree of freedom, there is a strong statistical evidence that Arabic as a functioning

language of unit processor programs is independent of the company of attribution. Arabic is declared to be used at a minority level for central unit software in both companies (19.4% in the Chinese company, and 23.1% in the French company).

English: Because the assumption rule is violated, the Fisher exact test is used. At a 0.05 level of significance, F.t = 0.443 is far much bigger. Consequently, there is no statistically significant association between English as a language of computer programs used and the multinational of work. However, it does not follow that English is incidentally a language in which programs of computers are used. The sample from the French company in its entirety along with an overwhelming majority of the Chinese company informant sample members display that computer software are in English,

Chinese: it is self-evident from the tables above that the company of affiliation critically determines the use or otherwise of Chinese for computer programs; this is represented by the negatively strong statistical significance of the corresponding Chi-square and Phi whose values far exceed the critical values ($62.290 > 3.84$ and $/-0.943/ > 0.50$). This language is marked with the vast majority (93.5%) in the Chinese company while obviously noted with absolute absence in the French company.

French: French is likewise presented with a statistically significant dependence on the respective corporation in its being a language of operation of computer software (15.175) while the effect of this dependence is seen to be of a medium size (0.466). Entirely absent in the Chinese Company, French is portrayed by 38.5% of the French company subjects to be used for the purpose.

Item b. Workplace controlling screens software

Table 28

Multinationals Crosstabulation for Item b (Question 4)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	↓status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	31	0	31	17	14	31	0	31	31	31	0	31
	f_e	31.0	0.0	31.0	7.5	23.5	31.0	17.3	13.7	31.0	24.4	6.6	31.0
	%	100%	0%	100%	54.8%	45.2%	100%	0.0%	100%	100%	100%	0.0%	100%
French	f_o	39	0	39	0	39	39	39	0	39	24	15	39
	f_e	39.0	0.0	39.0	9.5	29.5	39.0	21.7	17.3	39.0	30.6	8.4	39.0
	%	100%	0%	100%	0.0%	100%	100%	100%	0.0%	100%	61.5%	38.5%	100%
Total	f_o	70	0	70	17	53	70	39	31	70	55	15	70
	f_e	70.0	0.0	70.0	17.0	53.0	70.0	39.0	31.0	70.0	55.0	15.0	70.0
	%	100%	0%	100%	24.3%	75.7%	100%	55.7%	44.3%	100%	78.6%	21.4%	100%
		a. No statistics are computed because Q5.b.Workplace controlling screens software_Arabic is a constant			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.53. b. Computed only for a 2x2 table			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.73. b. Computed only for a 2x2 table			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.64. b. Computed only for a 2x2 table		

Table 29

The Respective Statistics of Significance and Effect for Item b (Question 4)

	df	x^2	L.r	F.t	∅	*V*
Arabic	1	/	/	/	/	/
English	1	28.247	34.925	.000	.635	.635
Chinese	1	70.000	96.124	.000	-1.000	1.000
French	1	15.175	20.771	.000	.466	.466

From the above tables, it is noted that no statistics are computed for Arabic because it is treated as a constant by SPSS. In principle, according to the subjects of the present survey, Arabic is absolutely absent in the workplace controlling screens software in both multinationals. In Table 29 is read the relevant Chi-square for 'English', 'Chinese' and 'French' for one degree of freedom, ordered as 28.247, 70.000 and 15.175. There is statistically significant evidence that English, Chinese and French are dependent on the respective company with a strength of Phi coefficients corresponding to a strong effect for English (0.635> 0.50), an absolutely strong effect for Chinese (/-1/> 0.50) and a medium effect for French ($0.30 < 0.466 < 0.5$).

Accordingly, as it is displayed on table 28, English is declared to be the language of the programs operating controlling screens at the workplace by the whole number of participants (100%) from the French company and a 45.2% minority of the participant individuals from the Chinese corporation. Chinese is also declared to be used in the instance by the entire sample in the Chinese company; and only in the French company where French is said to be the functioning language of the programs, by a minority (38.5%) of the surveyed employees though.

Item c: Labels of workplace hardware (equipment, tools,…)

Table 30

Multinationals Crosstabulation for Item c (Question 4)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational ⬇status		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	31	0	31	1	30	31	0	31	31	31	0	31
	f_e	31.0	0.0	31.0	8.4	22.6	31.0	17.3	13.7	31.0	15.1	15.9	31.0
	%	100%	0%	100%	3.2%	96.8%	100%	0.0%	100%	100%	100%	0.0%	100%
French	f_o	39	0	39	18	21	39	39	0	39	3	36	39
	f_e	39.0	0.0	39.0	10.6	28.4	39.0	21.7	17.3	39.0	18.9	20.1	39.0
	%	100%	0%	100%	46.2%	53.8%	100%	100%	0.0%	100%	7.7%	92.3%	100%
Total	f_o	70	0	70	19	51	70	39	31	70	34	36	70
	f_e	70.0	0.0	70.0	19.0	51.0	70.0	39.0	31.0	70.0	34.0	36.0	70.0
	%	100%	0%	100%	27.1%	72.9%	100%	55.7%	44.3%	100%	48.6%	51.4%	100%

a. No statistics are computed because Q5.c. Labels of workplace hardware (equipm-ent, tools) Arabic is a constant.	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.41. b. Computed only for a 2x2 table.	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.73. b. Computed only for a 2x2 table.	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.06. b. Computed only for a 2x2 table.

Table 31

The Respective Statistics of Significance and Effect for Item c (Question 4)

	df	x^2	L.r	F.t	∅	*V*
Arabic	1	/	/	/	/	
English	1	16.095	19.185	.000	-.480	.480
Chinese	1	70.000	96.124	.000	-1.000	1.000
French	1	58.914	75.831	.000	.917	.917

Just like the previous item, Arabic here is as well treated as a constant by SPSS, so no statistics are computed, meaning that Arabic is reported to be of no presence whatsoever in labelling the hardware in the companies**.**

Given that the results on table 31 for the other three languages provided clearly indicate statistical significance based on the calculated Chi-square values (16.095 for English, 70.000 in the case of Chinese, and 58.914 regarding French) which appear way greater than 3.84, with one degree of freedom and at 0.05 level of significance, so the use of English, Chinese and French for workplace material nomination and the multinational status are not independent variables. Considering the calculated coefficient effect values in reference to the respective critical values restrictions of the effect coefficients for each language, it appears that English is of a medium effect (0.48), French proves of a highly strong effect (0. 917) and Chinese transpires of an absolutely negative strong effect (-1).

Correspondingly, as can be told from the statistics put forward in table 30, English is intensively used a language of workplace pieces naming in the Chinese company (96.8%) in comparison to a majority level in the French company (53.8%); while Chinese is in attendance in the Chinese company only and this presence is an absolute one (100%) for the purpose, French is found in place only in the French company but with a greatly high majority (92.3%).

Item d: Documents (reports, contracts, CVs, etc.)

Table 32

Multinationals Crosstabulation for Item d (Question 4)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	↓status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	17	14	31	1	30	31	18	13	31	31	0	31
	f_e	19.5	11.5	31.0	1.3	29.7	31.0	25.2	5.8	31.0	23.5	7.5	31.0
	%	54.8%	45.2%	100%	3.2%	96.8%	100%	58.1%	41.9%	100%	100%	0.0%	100%
French	f_o	27	12	39	2	37	39	39	0	39	22	17	39
	f_e	24.5	14.5	39.0	1.7	37.3	39.0	31.8	7.2	39.0	29.5	9.5	39.0
	%	69.2%	30.8%	100%	5.1%	94.9%	100%	100%	0.0%	100%	56.4%	43.6%	100%
Total	f_o	44	26	70	3	67	70	57	13	70	53	17	70
	f_e	44.0	26.0	70.0	3.0	67.0	70.0	57.0	13.0	70.0	53.0	17.0	70.0
	%	62.9%	37.1%	100%	4.3%	95.7%	100%	81.4%	18.6%	100%	75.7%	24.3%	100%

a. 0 cells (0.0%) have expected count less than 5. The minimum

a. 2 cells (50.0%) have expected count less than 5. The minimum

a. 0 cells (0.0%) have expected count less than 5. The minimum

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is

expected count is 11.51. b. Computed only for a 2x2 table	expected count is 1.33. b. Computed only for a 2x2 table	expected count is 5.76. b. Computed only for a 2x2 table	7.53. b. Computed only for a 2x2 table

Table 33

The Respective Statistics of Significance and Effect for Item d (Question 4)

	df	x^2	L.r	F.t	∅	*V*
Arabic	1	1.532	1.530	.319	-.148	.148
English	1	.152	156	1.000	-.047	.047
Chinese	1	20.085	25.028	.000	-.536	.536
French	1	17.847	24.186	.000	.505	.505

On the one hand, it is readily noticed that there is a violation of the assumption minimum requirement of the expected regarding English; a Fisher exact test is then used; with df = 1 at α = 0.05, the F.t = 1 is much bigger than the alpha level of significance. On the other hand, the calculated Chi-square for Arabic (1.532) is much less than the critical value (3.84). Conclusively, both Arabic and English have no statistically significant association with the company status regarding the written reports, resumes, contracts, etc.

The values 20.085 and 17.847 (Table 33) are statistically significant at the level of 0.05 of significance for one degree of freedom, reflecting that whether the documents are written in Chinese or French is dependent on one's company. However, by comparing the effect coefficients to Cohen's critical values it is clear that such use is especially strong as regards Chinese (∅ = -0.536) and French (∅ = 0.505).

Connecting such findings with the results in Table 33. The corresponding views of the participants regarding the use of each language for the written documents in each company (The Chinese company vs. the French company) in terms of percentages read as follows: 45.2% vs. 30.8% for Arabic, 96.8% vs. 94.9% vis-à-vis English, Chinese 41.9% vs. 0% apropos Chinese, and 0% vs. 43.6% regarding French.

Item e:Display panel

Table 34

Multinationals Crosstabulation for Item e (Question 4)

Item➔		Arabic			English			Chinese			French		
Multinational ↓status		Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total
Chinese	f_o	12	19	31	7	24	31	2	29	31	31	0	31
	f_e	12.0	19.0	31.0	4.9	26.1	31.0	18.2	12.8	31.0	17.7	13.3	31.0
	%	38.7%	61.3%	100%	22.6%	77.4%	100%	6.5%	93.5%	100%	100%	0.0%	100%
French	f_o	15	24	39	4	35	39	39	0	39	9	30	39
	f_e	15.0	24.0	39.0	6.1	32.9	39.0	22.8	16.2	39.0	22.3	16.7	39.0
	%	38.5%	61.5%	100%	10.3%	89.7%	100%	100%	0.0%	100%	23.1%	76.9%	100%
Total	f_o	27	43	70	11	59	70	41	29	70	40	30	70
	f_e	27.0	43.0	70.0	11.0	59.0	70.0	41.0	29.0	70.0	40.0	30.0	70.0
	%	38.6%	61.4%	100%	15.7%	84.3%	100%	58.6%	41.4%	100%	57.1%	42.9%	100%

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.96. b. Computed only for a 2x2 table	a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.87. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.84. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.29. b. Computed only for a 2x2 table

The assumption is broken for English, therefore, the Fisher's test is used for English and the chi-square of independence value for the other languages.

Table 35

The Respective Statistics of Significance and Effect for Item e (Question 4)

	df	x^2	L.r	F.t	∅	*V*
Arabic	1	.000	.000	1.000	.003	.003
English	1	1.981	1.975	.196	.168	.168
Chinese	1	62.290	80.142	.000	-.943	.943
French	1	41.731	53.471	.000	.772	.772

For English, with 0.196 being greater than α, it is inferred that there is no statistically significant evidence that using English as a language of display in panels is related to the company of the individual respondents.

With one degree of freedom, the x^2 critical value at 0.05 level of significance is 3.84.

Chinese and French appear to depend on the company of work as languages panels are displayed in (62.29 and 41.731); still with a extremely, netaively large effect for Chinese (-0.943) and a strong effect for French (0.772).

There surfaces to be no statistically significant association between the company status and the use of Arabic in display panels (0 < 3.84).

It is understood from the afore-discussed and with a quick look into the above frequencies table that the use of both Arabic and English is comparable in both settings, whereas employment of Chinese and French depends on the company of employment.

Item f: Mess (Cafeteria/coffee breaks)

Table 36

Multinationals Crosstabulation for Item f (Question 4)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinationa l ⬇status		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	2	29	31	22	9	31	10	21	31	31	0	31
	f_e	1.3	29.7	31.0	12.0	19.0	31.0	21.7	9.3	31.0	25.2	5.8	31.0
	%	6.5%	93.5%	100%	71.0%	29.0%	100%	32.3%	67.7%	100%	100%	0.0%	100%
French	f_o	1	38	39	5	34	39	39	0	39	26	13	39
	f_e	1.7	37.3	39.0	15.0	24.0	39.0	27.3	11.7	39.0	31.8	7.2	39.0
	%	2.6%	97.4%	100%	12.8%	87.2%	100%	100%	0.0%	100%	66.7%	33.3%	100%
Total	f_o	3	67	70	27	43	70	49	21	70	57	13	70
	f_e	3.0	67.0	70.0	27.0	43.0	70.0	49.0	21.0	70.0	57.0	13.0	70.0
	%	4.3%	95.7%	100%	38.6%	61.4%	100%	70.0%	30.0%	100%	81.4%	18.6%	100%

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 1.33. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.96. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.30. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.76. b. Computed only for a 2x2 table

Table 37

The Respective Statistics of Significance and Effect for Item f (Question 4)

	df	x^2	L.r	F.t	∅	*V*
Arabic	1	.636	.636	.580	.095	.095
English	1	24.646	26.129	.000	.593	.593
Chinese	1	37.742	46.535	.000	-.734	.734
French	1	12.690	17.545	.000	.426	.426

Fisher's exact test for Arabic is equal to 0.58, which is way much bigger than the statistical significance level: 0.05; thus, speaking Arabic in the canteen is completely independent of the respondents' company.

Regarding the three remaining languages, using the values in Table 37 (with one degree of freedom and compared to the critical Chi-square of 3.84; $\alpha = 0.05$), it is found that:

The Squares 24.646, 37.742 and 12.690 are way above the tabulated critical value. There is particularly a strong effect between the dependence of using English in the mess by the workers and the company they belong to (0.593), a medium effect of the relationship for French (0.426) and a negatively strong effect for Chinese (-0.734).

The percent statistics have it that Arabic is used by the whopping majority in both companies, English is made use of by almost a third of the sample in the Chinese company as opposesd to the 87.2% majority in the French company, and Chinese is used at a considerable majority level of 67.7% in the Chinese corporation when only one third of the sample from the French company subscribed for use of French in their company.

5. ***Who uses which language(s)?(Please tick all that apply)***

Item a: Worker to worker

Table 38

Multinationals Crosstabulation for Item a (Question 5)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	↓status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	0	31	31	31	0	31	31	0	31	31	0	31
	f_e	0.0	31.0	31.0	31.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0	31.0
	%	0%	100%	100%	100%	0%	100%	100%	0%	100%	100%	0%	100%
French	f_o	0	39	39	39	0	39	39	0	39	39	0	39
	f_e	0.0	39.0	39.0	39.0	0.0	39.0	39.0	0.0	39.0	39.0	0.0	39.0
	%	0%	100%	100%	100%	0%	100%	100%	0%	100%	100%	0%	100%
Total	f_o	0	70	70	70	0	70	70	0	70	70	0	70

	f_e	0.0	70.0	70.0	70.0	0.0	70.0	70.0	0.0	70.0	70.0	0.0	70.0
	%	0%	100%	100%	100%	0%	100%	100%	0%	100%	100%	0%	100%
		a. No statistics are computed because Q6.a. Worker to worker_Arabic is a constant.			a. No statistics are computed because Q6.a. Worker to worker_Arabic is a constant.			a. No statistics are computed because Q6.a. Worker to worker_Arabic is a constant.			a. No statistics are computed because Q6.a. Worker to worker_Arabic is a constant.		

Table 39

The Respective Statistics of Significance and Effect for Item a (Question 5)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	/	/	/	/	/
English	1	/	/	/	/	/
Chinese	1	/	/	/	/	/
French	1	/	/	/	/	/

The surveyed individuals were set free to tick more than one choice, when that applies, from the list of the language options provided (‘Arabic’, ‘English’, ‘Chinese’, and ‘Fernch’). Treated as constants by SPSS, as demonstrates Table 5a2, no computations of the statistics of significance and effect are made for either language. Further, statistics in Table 5a2 unveil that apart from Arabic which scored a full rate (100%) a worker-to-worker day-to-day language of communication, the other three languages are totally not checked by any respondent in both companies.

Item b: Forman to forman

Table 40

Multinationals Crosstabulation for Item b (Question 5)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	↓status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	9	22	31	21	10	31	0	31	31	31	0	31
	f_e	11.1	19.9	31.0	11.5	19.5	31.0	17.3	13.7	31.0	27.5	3.5	31.0
	%	29.0%	71.0%	100%	67.7%	32.3%	100%	0.0%	100%	100%	100%	0.0%	100%
French	f_o	16	23	39	5	34	39	39	0	39	31	8	39
	f_e	13.9	25.1	39.0	14.5	24.5	39.0	21.7	17.3	39.0	34.5	4.5	39.0
	%	41.0%	59.0%	100%	12.8%	87.2%	100%	100%	0.0%	100%	79.5%	20.5%	100%
Total	f_o	25	45	70	26	44	70	39	31	70	62	8	70
	f_e	25.0	45.0	70.0	26.0	44.0	70.0	39.0	31.0	70.0	62.0	8.0	70.0
	%	35.7%	64.3%	100%	37.1%	62.9%	100%	55.7%	44.3%	100%	88.6%	11.4%	100%
		a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.07.			a. 0 cells (0%) have expected count less than 5. The minimum expected count is 11.51.			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.73.			a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.54.		

b. Computed only for a 2x2 table	b. Computed only for a 2x2 table	b. Computed only for a 2x2 table	b. Computed only for a 2x2 table

Table 41

The Respective Statistics of Significance and Effect for Item b (Question 5)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	1.082	1.092	.327	-.124	.124
English	1	22.314	23.503	.000	.565	.565
Chinese	1	70.000	96.124	.000	-1.000	1.000
French	1	7.179	10.174	.007	.320	.320

By means of comparison of the crosstabulated dataset between the case multinationals, considering $df = 1\ and\ a = 0.05$, it is found that:

- There is no statistical significance concerning the relationship of individuals' ascriptions to one of each of the multinational companies regarding exploitation of Arabic among foremen ($1.082 < 3.84$).
- A categorical use of English between foremen occurs more pertinent in the French company (87.2%) as compared to the Chinese Company (32.3%): 22.314 is way above the critical value with a big effect of 0.565.
- Since 0.007 is less than 0.05, and 0.32 is restricted between 0.3 and 0.5, a dependence with a medium size effect is recorded for the use of French (faint a commonness of usage with merely 20.5% though) in foremen-to-foremen interactions entirely in favour of the French company.
- A critically big difference between the use of Chinese among the high-level employees from both companies appears of a perfectly strong effect (70, -1). Chinese is only used in the Chinese company but to some degree of prevalence as admitted by all the sample members in the context.

Item c: Worker to foreman

Table 42

Multinationals Crosstabulation for Item c (Question 5)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational ➔status		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	2	29	31	3	28	31	31	0	31	31	0	31
	f_e	5.3	25.7	31.0	5.8	25.2	31.0	31.0	0.0	31.0	25.7	5.3	31.0
	%	6.5%	93.5%	100%	9.7%	90.3%	100%	100%	0%	100%	100%	0.0%	100%
French	f_o	10	29	39	10	29	39	39	0	39	27	12	39
	f_e	6.7	32.3	39.0	7.2	31.8	39.0	39.0	0.0	39.0	32.3	6.7	39.0
	%	25.6%	74.4%	100%	25.6%	74.4%	100%	100%	0%	100%	69.2%	30.8%	100%
Total	f_o	12	58	70	13	57	70	70	0	70	58	12	70
	f_e	12.0	58.0	70.0	13.0	57.0	70.0	70.0	0.0	70.0	58.0	12.0	70.0
	%	17.1%	82.9%	100%	18.6%	81.4%	100%	100%	0%	100%	82.9%	17.1%	100%
		a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.31. b. Computed only for a 2x2 table			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.76. b. Computed only for a 2x2 table			a. No statistics are computed because Q6.c. Worker to foreman_Chinese is a constant.			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.31. b. Computed only for a 2x2 table		

Table 43

The Respective Statistics of Significance and Effect for Item c (Question 5)

	df	x^2	L.r	F.t	∅	*V*
Arabic	1	4.478	4.906	.054	-.253	.253
English	1	2.911	3.078	.124	-.204	.204
Chinese	1	/	/	/	/	/
French	1	11.512	15.995	.001	.406	.406

The results obtained in the values table statistics (Table 42 & Table 43) are successively examined for each language; therefore,

- There proves to be a difference in putting Arabic into action in situations involving a worker talking to the manager per company ($4.478 > 3.84$) with a noticeably feeble statistical significant effect ($\emptyset = -0.253$). This week relationship effect is a result of the comparable use of the language in both settings as is reflected by the percentages displayed on Table 50: the great most majority of 93.5% in the Chinese company in parallel to the importantly significant 74.4% majority in the French company.
- With 2.911 being less than the critical value, English is said to bear no statistically significant association a language workers use to address their supervisors on company status. What is allowed for above in consideration of the comparability of ratio statistics about the use of the Arabic language by roustabouts in the directoion of their workplace forepersons in both multinationals is much of a matchness and admittedly applies to English (90.3% vs. 74.4%).
- A statistically significant dependence of an average effect between the usage of French on the part of the low-level staff members when speaking to their bosses is self-

evident (11.512; 0.406). French is found to exist just in the French company at a low frequency (30.8%).

- No measures of association are computed for Chinese as no worker possesses the potential of using this language to communicate with chiefs.

Item d: Forman to worker

Table 44

Multinationals Crosstabulation for Item d (Question 5)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	➔status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	2	29	31	12	19	31	7	24	31	31	0	31
	f_e	4.9	26.1	31.0	9.3	21.7	31.0	20.4	10.6	31.0	27.9	3.1	31.0
	%	6.5%	93.5%	100%	38.7%	61.3%	100%	22.6%	77.4%	100%	100%	0.0%	100%
French	f_o	9	30	39	9	30	39	39	0	39	32	7	39
	f_e	6.1	32.9	39.0	11.7	27.3	39.0	25.6	13.4	39.0	35.1	3.9	39.0
	%	23.1%	76.9%	100%	23.1%	76.9%	100%	100%	0.0%	100%	82.1%	17.9%	100%
Total	f_o	11	59	70	21	49	70	46	24	70	63	7	70
	f_e	11.0	59.0	70.0	21.0	49.0	70.0	46.0	24.0	70.0	63.0	7.0	70.0
	%	15.7%	84.3%	100%	30.0%	70.0%	100%	65.7%	34.3%	100%	90.0%	10.0%	100%
		a. 1 cells (25.0%) have expected count less than 5. The minimum expected			a. 0 cells (0.0%) have expected count less than 5. The minimum			a. 0 cells (0.0%) have expected count less than 5. The minimum expected			a. 2 cells (50.0%) have expected count less than 5. The minimum expected		

count is 4.87. b. Computed only for a 2x2 table	expected count is 9.30. b. Computed only for a 2x2 table	count is 10.63. b. Computed only for a 2x2 table	count is 3.10. b. Computed only for a 2x2 table

Table 45

The Respective Statistics of Significance and Effect for Item d (Question 5)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	3.604	3.919	.096	-.227	.227
English	1	2.010	2.004	.194	.169	.169
Chinese	1	45.947	56.890	.000	-.810	.810
French	1	6.182	8.804	.015	.297	.297

- The use of Arabic by formen to workers is independent of the company individuals are ascribed to (0.096 is clearly higher than the level of significance value). So Arabic is used at high level of frequency in both multinationals (93.5% and 76.9%).
- Similarly, the relationship between using English by foremen to workers and the company of work is statistically insignificant (2.01). English is as well pronounced to be majorly used by the individuals in each company (61.3% and 76.9%).
- Superisingly, Chinese is declared by 77.4% of the Chinese company sample that it is being made use of by bosses when addressing workers. While the relationship between using Chinese by the meant individuals and the company of work is obviously statistically significant (45.947), it is of a strikingly negatively strong effect (-0.810).
- Maintained to be in use by bosses by a small minority (17.9%) in the French company, French is dependent of the respective company of consideration (0.015) and this dependence shows to be medium in effect (0.297).

Item e: Foremen to company man

Table 46

Multinationals Crosstabulation for Item e (Question 5)

Item➔		Arabic			English			Chinese			French		
Multinational ➔status		Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total	Unchecked	Checked	Total
Chinese	f_o	11	20	31	7	24	31	31	0	31	31	0	31
	f_e	8.4	22.6	31.0	7.1	23.9	31.0	31.0	0.0	31.0	21.7	9.3	31.0
	%	35.5%	64.5%	100%	22.6%	77.4%	100%	100%	0%	100%	100%	0.0%	100%
French	f_o	8	31	39	9	30	39	39	0	39	18	21	39
	f_e	10.6	28.4	39.0	8.9	30.1	39.0	39.0	0.0	39.0	27.3	11.7	39.0
	%	20.5%	79.5%	100%	23.1%	76.9%	100%	100%	0%	100%	46.2%	53.8%	100%
Total	f_o	19	51	70	16	54	70	70	0	70	49	21	70
	f_e	19.0	51.0	70.0	16.0	54.0	70.0	70.0	0.0	70.0	49.0	21.0	70.0
	%	27.1%	72.9%	100%	22.9%	77.1%	100%	100%	0%	100%	70.0%	30.0%	100%
		a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.41. b. Computed only for a 2x2 table			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.09. b. Computed only for a 2x2 table			a. No statistics are computed because Q6.e. Foremen to company man_Chinese is a constant.			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.30. b. Computed only for a 2x2 table		

Table 47

The Respective Statistics of Significance and Effect for Item e (Question 5)

	df	x^2	L.r	F.t	∅	V
Arabic	1	1.958	1.951	.186	.167	.167
English	1	.002	.002	1.000	-.006	.006
Chinese	1	/	/	/	/	/
French	1	23.846	31.687	.000	.584	.584

There is no statistically significant difference between the company of affiliation and the use of both Arabic and English by foremen when talking to compay man (1.958 and 0.002 $<$ 3.84). No measures of association are computed for the crosstabulation of Company* Item e as no one claimed use of Chinese between foremen and company man. Usage of French by formen in their address to company man speaks for itself in terms of the large statistical significance there is, with a strong effect (0.584), in consideration of the relevant corporation (23.846). French is found existent a language for the purpose just in the French company at a low frequency (30.8%). Statistics on Table 46 demonstrate the respective percentages recorded for each language in every company, which we range sequentially in the following order, the first value pertaining to the Chinese firm:

- Arabic: 64.5% vs. 79.5%,
- English: 77.4% vs. 76.9%,
- Chinese: 0.0% in both, and
- French: 0.0% vs. 30.0%.

Item f: Site employees to base administration

Table 48

Multinationals Crosstabulation for Item f (Question 5)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	↓status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	16	15	31	21	10	31	7	24	31	31	0	31
	f_e	8.0	23.0	31.0	15.9	15.1	31.0	20.4	10.6	31.0	18.6	12.4	31.0
	%	51.6%	48.4%	100%	67.7%	32.3%	100%	22.6%	77.4%	100%	100%	0.0%	100%
French	f_o	2	37	39	15	24	39	39	0	39	11	28	39
	f_e	10.0	29.0	39.0	20.1	18.9	39.0	25.6	13.4	39.0	23.4	15.6	39.0
	%	5.1%	94.9%	100%	38.5%	61.5%	100%	100%	0.0%	100%	28.2%	71.8%	100%
Total	f_o	18	52	70	36	34	70	46	24	70	42	28	70
	f_e	18.0	52.0	70.0	36.0	34.0	70.0	46.0	24.0	70.0	42.0	28.0	70.0
	%	25.7%	74.3%	100%	51.4%	48.6%	100%	65.7%	34.3%	100%	60.0%	40.0%	100%
		a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.97.			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.06.			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.63.			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.40.		

b. Computed only for a 2x2 table	b. Computed only for a 2x2 table	b. Computed only for a 2x2 table	b. Computed only for a 2x2 table

Based on the the squares 19.537, 5.928, 45.947 and 37.094 which are far beyond 3.84, we can read the following:

- There is specifically a large effect between the dependence of using Arabic and French by site employees when corresponding with the administration in the base and the multinational they work for (0.528 and 0.728).
- The dependence in question appears weak for English (0.291) and remarkably strong in the case of Chinese (-0.81).

Correspondingly, A bare minority from the Chinese company (48.4%) as opposed to a whopping majority from the Frnehc concern (94.9%) said that Arabic is in use, whereas English is declared at a markedly lower level in each multinational: 32.3% and 61.5% respectively. Unexpectedly, knowingly only present in the Chinese company, Chinese is portrayed in high regard by the particpants: 77.4%. French is represented at 71.8% in the French company while, again, totally absent in the counterpart company.

Table 49

The Respective Statistics of Significance and Effect for Item f (Question 5)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	19.537	21.086	.000	.528	.528
English	1	5.928	6.028	.018	.291	.291
Chinese	1	45.947	56.890	.000	-.810	.810
French	1	37.094	47.821	.000	.728	.728

6. ***Which of the following languages are used by your company for communication?***

A. Internal Communication

Item a: Internal Online Written Communication

Table 50

Multinationals Crosstabulation for Item A.a (Question 6)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational ⬇status		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	17	14	31	7	24	31	3	28	31	31	0	31
	f_e	19.9	11.1	31.0	3.5	27.5	31.0	18.6	12.4	31.0	23.5	7.5	31.0
	%	54.8%	45.2%	100%	22.6%	77.4%	100%	9.7%	90.3%	100%	100%	0.0%	100%
French	f_o	28	11	39	1	38	39	39	0	39	22	17	39
	f_e	25.1	13.9	39.0	4.5	34.5	39.0	23.4	15.6	39.0	29.5	9.5	39.0
	%	71.8%	28.2%	100%	2.6%	97.4%	100%	100%	0.0%	100%	56.4%	43.6%	100%
Total	f_o	45	25	70	8	62	70	42	28	70	53	17	70
	f_e	45.0	25.0	70.0	8.0	62.0	70.0	42.0	28.0	70.0	53.0	17.0	70.0
	%	64.3%	35.7%	100%	11.4%	88.6%	100%	60.0%	40.0%	100%	75.7%	24.3%	100%
		a. 0 cells (0.0%) have expected count			a. 2 cells (50.0%) have expected count			a. 0 cells (0.0%) have expected count			a. 0 cells (0.0%) have expected count		

less than 5. The minimum expected count is 11.07. b. Computed only for a 2x2 table	less than 5. The minimum expected count is 3.54. b. Computed only for a 2x2 table	less than 5. The minimum expected count is 12.40. b. Computed only for a 2x2 table	less than 5. The minimum expected count is 7.53. b. Computed only for a 2x2 table

Table 51

The Respective Statistics of Significance and Effect for Item A.a (Question 6)

	df	x^2	L.r	F.t	∅	V
Arabic	1	2.163	2.161	.209	-.176	.176
English	1	6.836	7.334	.018	.313	.313
Chinese	1	58.710	74.510	.000	-.916	.916
French	1	17.847	24.186	.000	.505	.505

- One case of the expected counts violated the assumption rule of Chi-square as shown in Table 51. A clearly statistically significant association of a medium effect between the use of English for internal online written communication and the company of the individual particpants is noticed as Fisher's extact test (0.018) is smaller than 0.05 with the chi-square effect size coefficient (0.313) restricted between 0.3 and 0.5.
- With $df = 1$ and $\alpha = 0.05$, $X^2 = 3.84$. Using these values with the statistical calculations in tables 6a1 and 6a2, it is found that
    - Using Arabic for online intra-communication of the written mode is independent of the individual participants' company of recruitment (2.163).
    - A relatedness between the use of Chinese and French for the said communication and the company status is found to be extremely negatively

strong for the former tongue (58.710; - 0.916) and strong for the latter (17.847; 0.505).

In percentage terms, Table 50 reveals that Arabic harvested modest scores a language of domestic company online communication in both companies (45.2% / 28.2%), English scored greatly high rates (77.4% / 97.4%), Chinese is of a high order (90.3%) in the Chinese company and French is of a low view among the employees of the French company (43.6%).

Item b: Internal face to face spoken Communication

Table 52

Multinationals Crosstabulation for Item A.b (Question 6)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational ↓status		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	0	31	31	18	13	31	1	30	31	31	0	31
	f_e	0.0	31.0	31.0	8.0	23.0	31.0	17.7	13.3	31.0	20.8	10.2	31.0
	%	0%	100%	100%	58.1%	41.9%	100%	3.2%	96.8%	100%	100%	0.0%	100%
French	f_o	0	39	39	0	39	39	39	0	39	16	23	39
	f_e	0.0	39.0	39.0	10.0	29.0	39.0	22.3	16.7	39.0	26.2	12.8	39.0
	%	0%	100%	100%	0.0%	100%	100%	100%	0.0%	100%	41.0%	59.0%	100%
Total	f_o	0	70	70	18	52	70	40	30	70	47	23	70
	f_e	0.0	70.0	70.0	18.0	52.0	70.0	40.0	30.0	70.0	47.0	23.0	70.0

	%	0%	100%	100%	25.7%	74.3%	100%	57.1%	42.9%	100%	67.1%	32.9%	100%
		a. No statistics are computed because Q7.b. Internal face to face spoken Communication _Arabic is a constant.			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.97. b. Computed only for a 2x2 table			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.29. b. Computed only for a 2x2 table			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.19. b. Computed only for a 2x2 table		

Table 53

The Respective Statistics of Significance and Effect for Item A.b (Question 6)

	df	x^2	L.r	F.t	∅	*V*
Arabic	1	/	/	/	/	/
English	1	30.484	37.641	.000	.660	.660
Chinese	1	66.048	86.772	.000	-.971	.971
French	1	27.229	35.840	.000	.624	.624

- No computations of the statistics of dependence are made for Arabic because it is treated as a constant as statistics in Table 52 demonstrate that this language is voted for by all the participant employees without exception in both multinational corporations, telling of the absolute (100%) presence of Arabic in direct company intra-communications.
- No case of the expected counts violated the assumption rule, as shown in Table 53. At one degree of freedom and a significance level of $\alpha = 0.05$, the critical value to use is $X^2 = 3.84$. In checking the calculated values it is crystal clear that all the three

remaining languages have a statistically significant value (English: 30.484; Chinese: 66.048; French: 27.229). As such, there is a strong relationship between the use of English (0.660) and French (0.624) for face to face dometic firm communication and the status of the company, and very negatively strong a relation considering Chinese (-0.971). This is illustrated by the proportions marked for each language in each company: 41.9% vs. 100% for English, 0% vs. 59.0% for French, and 96.8% vs. 0% for Chinese, the first value representing that of the Chinese company for each.

Item c: Internal online/by phone spoken Communication

Table 54

The Respective Statistics of Significance and Effect for Item A.c (Question 4)

	df	x^2	L.r	F.t	Ø	*V*
Arabic	1	6.774	8.633	.014	.311	.311
English	1	20.085	25.028	.000	.536	.536
Chinese	1	40.363	49.797	.000	-.759	.759
French	1	39.356	50.570	.000	.750	.750

It is noted that more than 20% of the expecteds have calculated counts below 5 which means that the x^2 assumption of minimum expected counts is violated for Arabic; in view of that, the values 0.014 and 0.311 substanciate a medium statistically significant dependence of the dichotomous variables at stake. Arabic is overwhelmingly present a tongue used for the home verbal communication of an indirect mode in both companies. This language is declared to be in practice, for the indicated sort of interactions, by a greatly significant majority of the respondents (83.9%) in the Chinese company as compared to the entire sample members (100%) from the French company.

Table 55

Multinationals Crosstabulation for Item A.c (Question 6)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	⬇status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	5	26	31	13	18	31	9	22	31	31	0	31
	f_e	2.2	28.8	31.0	5.8	25.2	31.0	21.3	9.7	31.0	18.2	12.8	31.0
	%	16.1%	83.9%	100%	41.9%	58.1%	100%	29.0%	71.0%	100%	100%	0.0%	100%
French	f_o	0	39	39	0	39	39	39	0	39	10	29	39
	f_e	2.8	36.2	39.0	7.2	31.8	39.0	26.7	12.3	39.0	22.8	16.2	39.0
	%	0.0%	100%	100%	0.0%	100%	100%	100%	0.0%	100%	25.6%	74.4%	100%
Total	f_o	5	65	70	13	57	70	48	22	70	41	29	70
	f_e	5.0	65.0	70.0	13.0	57.0	70.0	48.0	22.0	70.0	41.0	29.0	70.0
	%	7.1%	92.9%	100%	18.6%	81.4%	100%	68.6%	31.4%	100%	58.6%	41.4%	100%

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.21. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.76. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.74. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.84. b. Computed only for a 2x2 table

With square values of 20.085 for English and 39.356 for French, there is a large vacuum separating them from the critical 3.84. Moreover, the values 0.536 and 0.75 signify correspondingly a strong effect of English and French being used for intramural spoken communication (online/by phone) depending on the company of enrollment. Less so common in the Chinese company, with a rate of 58.1%, compared to Arabic, English enjoys a full value which rivals that of Arabic in use for the said interactions in the French company. In the latter company, French holds a respectable position as well: 74.4%.

In the same way, the calculated 40.363 for Chinese is largely statistically significant, and with -0.759 it is apparent that the use of Chinese for the interior spoken communication online/via phone is largely dependent on the respective company. Just like French in the French company, Chinese maintains a decent footing being the language of the indicated kind of verbal exchange in the Chinese company: 71.0%.

B. External Communication

Item a: External Online Written Communication

Table 56

Multinationals Crosstabulation for Item B.a (Question 7)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	⬇status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	18	13	31	4	27	31	23	8	31	31	0	31
	f_e	19.5	11.5	31.0	6.2	24.8	31.0	27.5	3.5	31.0	18.2	12.8	31.0
	%	58.1%	41.9%	100%	12.9%	87.1%	100%	74.2%	25.8%	100%	100%	0.0%	100%

French	f_o	26	13	39	10	29	39	39	0	39	10	29	39
	f_e	24.5	14.5	39.0	7.8	31.2	39.0	34.5	4.5	39.0	22.8	16.2	39.0
	%	66.7%	33.3%	100%	25.6%	74.4%	100%	100%	0.0%	100%	25.6%	74.4%	100%
Total	f_o	44	26	70	14	56	70	62	8	70	41	29	70
	f_e	44.0	26.0	70.0	14.0	56.0	70.0	62.0	8.0	70.0	41.0	29.0	70.0
	%	62.9%	37.1%	100%	20.0%	80.0%	100%	88.6%	11.4%	100%	58.6%	41.4%	100%

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.51. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.20. b. Computed only for a 2x2 table	a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.54. b. Computed only for a 2x2 table	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.84. b. Computed only for a 2x2 table

- For the Chinese language, 2 cells have expected count less than 5, meaning that the Chi-square assumption rule is floated. A clearly statistically significant association of a negatively medium effect between the use of Chinese for external online written commu-nication and the company of enrollement is noticed as Fisher's extact test (0.001) is way less than 0.05 with the effect coefficient (-0.403) being restricted between 0.3 and 0.5.
- Comparing the critical value of x^2, with one degree of freedom, at alpha level of statistical significance, with the crosstabulated respective statistics of significance and effect, it is found that

- Making use of Arabic for online foreign correspondences of the written mode is of no statistically significant relatedness to the individual participants' company of hiring (0.547).
- Likewise, there is no statistically significant association between using English for external distance written communication and the relevant company (1.751).
- A relatedness between the use of French for the aforementioned communication and the company affiliation is noted to be considerably strong (39.356; 0.750).

Table 57

The Respective Statistics of Significance and Effect for Item B.a (Question 4)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	.547	.546	.619	-.088	.088
English	1	1.751	1.812	.237	-.158	.158
Chinese	1	11.363	14.350	.001	-.403	.403
French	1	39.356	50.570	.000	.750	.750

In the same vein, Arabic is modestly present for writing in foreign online communications in both companies (41.9% as compared to 33.3%) and English is prestigious (87.1% as compared with 74.4%); Chinese recorded a lowly humble rate (25.8%) in the Chinese company and French is reputable in the eyes of a significantly good majority of the sample from the French company (74.4%).

Item b: External face to face spoken Communication

Table 58

Multinationals Crosstabulation for Item B.b (Question 7)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational ↓status		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	0	31	31	20	11	31	23	8	31	31	0	31
	f_e	0.0	31.0	31.0	18.6	12.4	31.0	27.5	3.5	31.0	27.0	4.0	31.0
	%	0%	100%	100%	64.5%	35.5%	100%	74.2%	25.8%	100%	100%	0.0%	100%
French	f_o	0	39	39	22	17	39	39	0	39	30	9	39
	f_e	0.0	39.0	39.0	23.4	15.6	39.0	34.5	4.5	39.0	34.0	5.0	39.0
	%	0%	100%	100%	56.4%	43.6%	100%	100%	0.0%	100%	76.9%	23.1%	100%
Total	f_o	0	70	70	42	28	70	62	8	70	61	9	70
	f_e	0.0	70.0	70.0	42.0	28.0	70.0	62.0	8.0	70.0	61.0	9.0	70.0
	%	0%	100%	100%	60.0%	40.0%	100%	88.6%	11.4%	100%	87.1%	12.9%	100%

a. No statistics are computed because Q7.B2.b. Internal face to face spoken Communication_Arabic is a constant.	a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.40. b. Computed only for a 2x2 table	a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.54. b. Computed only for a 2x2 table	a.1 cells (25%) have expected count less than 5. The minimum expected count is 3.99. b. Computed only for a 2x2 table

Table 59

The Respective Statistics of Significance and Effect for Item B.b (Question 6)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	/	/	/	/	/
English	1	.473	.475	.624	.082	.082
Chinese	1	11.363	14.350	.001	-.403	.403
French	1	8.209	11.577	.004	.342	.342

- No measures of association are computed for Arabic by reason of having been admitted by all the participants of the study (an absolute 100%) as an indispensable language serving for external face to face interactions of the companies by excellence. In this way it was treated by SPSS as a constant.
- The reading of the statistical results the above tables display for English cannot be taken further than merely declining any presumed relationship of dependence between the variables since $0.473 < 3.84$. It remains to comment, based on Table 58, that English seemingly quits prestige in both companies when it comes to the external direct verbal exchanges.
- Two cases of the expected counts violated the assumption rule of Chi-square as shown in Table 59. To take this further, Fisher's test is to be compared to the level of significance in order to reveal the existence or absence of a reasonabl relationship, and the effect size coefficients are to be be read off in reference to the critical values restrictions so as to conclude the degree of strength or otherwise of weakness of the assumed association between variables, if any:
    - *Chinese*: the values 0.001 and -0.403 mean Chinese to be of a negatively moderate depence on the company status in terms of its use for external face-to-face contacts.

- *French:*a medium statistically significant relationship between French being the language of external direct interaction and the relevant company (0.004; 0.342).

Again, both Chinese and French are humbled when it comes to corporate external dealings, each in its respective company: 25.8% and 23.1%, respectively.

Item c: External online/by phone spoken Communication

Table 60

The Respective Statistics of Significance and Effect for Item B.c (Question 6)

	df	x^2	L.r	F.t	$\emptyset$	V
Arabic	1	.152	.156	1.000	-.047	.047
English	1	12.187	12.471	.001	.417	.417
Chinese	1	11.363	14.350	.001	-.403	.403
French	1	10.374	14.486	.001	.385	.385

Except for the second item the assumption is breached; the chi-square value is used for English and the Fisher's exact test for the rest. With one degrees of freedom and the significance level of 0.05, it is inferred that there is statistically significant strong evidence that the use of each language, save Arabic, for the outward virtual speech-based communication is much related to the company of the individual respondents.

With Fisher's exact test of 0.001for both Chinese and French, there is a clear disparity between the calculated value and the significance level. However, the computed value for Arabic (1) is far too great to compare with alpha value, providing strong statistical evidence for the acceptance of the null hypothesis that negates any dependence between variables. On a similar note, the calculated square 12.187 for English is largely statistically significant.

Table 61

Multinationals Crosstabulation for Item B.c (Question 6)

Item➔		Arabic		Total	English		Total	Chinese		Total	French		Total
Multinational	↓status	Unchecked	Checked		Unchecked	Checked		Unchecked	Checked		Unchecked	Checked	
Chinese	f_o	1	30	31	17	14	31	23	8	31	31	0	31
	f_e	1.3	29.7	31.0	10.2	20.8	31.0	27.5	3.5	31.0	26.1	4.9	31.0
	%	3.2%	96.8%	100%	54.8%	45.2%	100%	74.2%	25.8%	100%	100%	0.0%	100%
French	f_o	2	37	39	6	33	39	39	0	39	28	11	39
	f_e	1.7	37.3	39.0	12.8	26.2	39.0	34.5	4.5	39.0	32.9	6.1	39.0
	%	5.1%	94.9%	100%	15.4%	84.6%	100%	100%	0.0%	100%	71.8%	28.2%	100%
Total	f_o	3	67	70	23	47	70	62	8	70	59	11	70
	f_e	3.0	67.0	70.0	23.0	47.0	70.0	62.0	8.0	70.0	59.0	11.0	70.0
	%	4.3%	95.7%	100%	32.9%	67.1%	100%	88.6%	11.4%	100%	84.3%	15.7%	100%
		a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is			a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.19.			a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is			a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.87.		

1.33. b. Computed only for a 2x2 table	b. Computed only for a 2x2 table	3.54. b. Computed only for a 2x2 table	b. Computed only for a 2x2 table

Moreover, the values - 0.403, 0.385, and 0.417 signify correspondingly a negatively medium effect of using Chinese, and a positively moderate effect of using English and French by individuals for the indicated purpose depending on the company they are employed in.

Remarkably, Arabic is prodigiously dominant for the external oral computer-/phone-mediated communication in both companies; it is depicted to be in effect by 95.7% of the totality of the study subjects. English is chosen by a bit less than half of the Chinese company sample (45.2%) and by a greatly significant majority of the respondents (84.6%) from the French company. Both Chinese and French are depicted in poor light in their corresponding company of operation each: 25.8% and 28.2% sequentially.

Part Two: The Likert Scale

A. Employees of different origins encounter communication problems in the company (at work)

Table 62

Multinationals Crosstabulation for Statement A

			A. Employees of different origins encounter communication problems in the company				Total
			Strongly Agree	Agree	Disagree	Strongly Disagree	
Company	Chinese	Count	5	24	2	0	31
		Expected Count	4.0	14.2	12.0	.9	31.0
		% within Company	16.1%	77.4%	6.5%	0.0%	100.0%
	French	Count	4	8	25	2	39
		Expected Count	5.0	17.8	15.0	1.1	39.0
		% within Company	10.3%	20.5%	64.1%	5.1%	100.0%
Total		Count	9	32	27	2	70
		Expected Count	9.0	32.0	27.0	2.0	70.0
		% within Company	12.9%	45.7%	38.6%	2.9%	100.0%

Table 63

Chi-Square Tests for Statement A

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	29.170[a]	3	.000
Likelihood Ratio	33.511	3	.000
Linear-by-Linear Association	17.492	1	.000
N of Valid Cases	70		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is .89.

Table 64

Symmetric Measures for Statement A

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal	Kendall's tau-b	.520	.095	5.558	.000
Ordinal	Spearman Correlation	.547	.099	5.393	.000[c]
Interval	Pearson's R	.503	.096	4.806	.000[c]
N of Valid Cases		70			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Taking into consideration the critical values from Table 1(df = 3, $\alpha = 0.05, X^2 = 7.81$) and using the obtained values in Tables 62, 63 and 64, for Statement A: Employees of different origins encounter communication problems in the company (at work), it is found that 37.5% of the cases violated the assumption of less than 20% expected counts. Still, L.r = 33.511 is largely greater than the critical 7.82 with a clearly strong effect (T_b = 0.52). Conclusively, there is strong statistically significant evidence for the variation in support for whether employees of different origins encounter communication problems in the multinational workplace based on the respective study subjects' company.

Looking up Table 62, the statistics indicate that:

For the French company: while just about a two-thirds majority of the participants (64.1%) is in disagreement with the claim that worldly-wise work team peers face workplace communication barriers in their company, a fifth of the whole (20.5%) corroborates the opinionated observation that that is just the case. In the meantime, whereas only just a tiny insignificant minority of 5.1% do totally disagree that their company's culturally diverse workforce members run into communication difficulties during work conduct, double that rate of the sample (10.3%) demonstrate quite an opposite position, in an unreserved support of the very claim. It is concluded that the majority (69.2%) of the French company respondents oppose the view that workers of multicultural teams collide due to miscommunications.

For the Chinese company: the great majority of the sample elements (77.4%) agree that workplace communication complications of one kind or another arise among employees of cosmopolitan crews in the process of conducting work, and 16.1% appear even more dogmatic in that perception. The remaining inconsequential rate of 6.5% disagree about that. Consequently, whether the occurrence of communication problems among

international work teams is a fact polled the whopping majority (93.5%) of the vote in the Chinese company.

Bottom line, the statistical chi-square test calculations and frequency/perectage statistics are in concordance regarding the existence of variation between the companies in respect with communication breakdowns emergence among a multinational workforce: the vast majority of 93.5% in the Chinese company confirms the case whereas the large majority of 69.2% from the French company rebuts it.

B. Employees of different origins speaking different languages:

Table 65

The Respective Statistics of Significance and Effect for Statement B

	df	x^2	$L.r$	T_b
Item 1	3	4.342	4.714	- 0.145
Item 2	3	7.797	8.303	0.278
Item 3	3	9.531	10.046	- 0.233
Item 4	3	3.377	4.876	- 0.122

Table 66

Multinationals Crosstabulation for Statement B

Item➔		Item1				Item2				Item3				Item4				Total
Multinational status ➔		SA	A	D	SD	Total	SA	A	D	SD	Total	SA	A	D	SD	Total	SA	A	D	SD	
Chinese	f_o	0	3	18	10	31	20	9	2	0	31	3	1	18	9	31	0	0	6	25	31
	f_e	.4	2.2	21.3	7.1	31.0	14.6	14.2	1.8	.4	31.0	2.2	2.7	21.3	4.9	31.0	.4	1.3	5.8	23.5	31.0
	%	0.0%	9.7%	58.1%	32.3%	100%	64.5%	29.0%	6.5%	0.0%	100%	9.7%	3.2%	58.1%	29.0%	100%	0.0%	0.0%	19.4%	80.6%	100%
French	f_o	1	2	30	6	39	13	23	2	1	39	2	5	30	2	39	1	3	7	28	39
	f_e	.6	2.8	26.7	8.9	39.0	18.4	17.8	2.2	.6	39.0	2.8	3.3	26.7	6.1	39.0	.6	1.7	7.2	29.5	39.0
	%	2.6%	5.1%	76.9%	15.4%	100%	33.3%	59.0%	5.1%	2.6%	100%	5.1%	12.8%	76.9%	5.1%	100%	2.6%	7.7%	17.9%	71.8%	100%

Total	f_o	1	5	48	16	70	33	32	4	1	70	5	6	48	11	70	1	3	13	53	70
	f_e	1.0	5.0	48.0	16.0	70.0	33.0	32.0	4.0	1.0	70.0	5.0	6.0	48.0	11.0	70.0	1.0	3.0	13.0	53.0	70.0
	%	1.4%	7.1%	68.6%	22.9%	100%	47.1%	45.7%	5.7%	1.4%	100%	7.1%	8.6%	68.6%	15.7%	100%	1.4%	4.3%	18.6%	75.7%	100%
		a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .44.					a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .44.					a. 5 cells (62.5%) have expected count less than 5. The minimum expected count is 2.21.					a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .44.				

The critical value of X^2 for the 0.05 level and df = 3 can be found in Table 1: 7.82. It is clearly noticed that the assumption of no more than 20% of cases must have expected count less than five (05) is abused for all four items. Alternatively, the use of likelihood ratio is required.

Because for item 1 and item 2, $X^2_{crit} > L.r$, the variance between each item and the company variable is legitimately said to be of no statistical signifance.

Because $L.r > X^2_{crit}$ for both the second and third items, there is statistically strong evedicnce that the variables are at variance; the degree and form of this divergence is weak for both of these variables and the company variable since their corresponding Kendall's tau-b is below 0.29 each, but is positive for the former (0.278) and negative for the latter (- 0.122).

Item 1: Only 9.7% of the Chinese company sample and 5.1% from the French company sample believe that employees of different origins speaking different languages *feel linguistically insecure***,** with 2.6% from the latter company are even of the most determined belief in that. A majority of 58.1% from the first company and 76.9% from the second disbelieve that those individuals harbour such a feeling, added to 32.3% and 15.4% from each of the companies, correspondingly, who are even of a most adamant disbelief in the existence of suchlike feelings among the said workplace actors.

Item 2: Overall, the whopping majority from both multinational companies deem that employees of different origins speaking different languages *form linguistic ghettos***.** ***T***hese stand for 93.5% all in all in the Chinese company and 92.3% in all in the French company: 64.5% vs. 33.3%, respectively in this order for each company, make the point with force and conviction; and 29.0% vs 59.0%, each to each correspondingly, simply concur with

the statement. The remaining proportions in each company represent those whose opinions are in disaccord with the highlighted grouping instance and voiced their judgment at a negligible minority.

Item 3: Similar to the first item, item 3, whether employees from diverse nationalities speaking different tongues get linguistic injustice feelings**,** is expressed at a significantly low likelihood a case to be (merely 12.9% in the Chinese company and 17.9% in the French company). A 58.1% Chinese company sample majority and a 76.9% French company sample majority disagreed with the idea, again, 29.0% and 5.1% in each company respectively strongly disagreed; this makes a total of 87.1% and 82% discordance, in this order, among the participants from each setting.

Item 4: the statement provided for this item reads as: Employees of different origins speaking different languages show scornful attitudes towards speakers of some language. In a like manner, the odds for this item is voiced at a very low minority level: the chances are null in the Chinese company and only one in ten in the French company. Conversely, those who disagreed constitute 19.4% and 17.9% while those who firmly dissented construct the big majority of 80.6% and 71.8%, sequentially.

C. Linguistic conflicts affect work conduct in terms of progress and productivity

Table 67

Multinationals Crosstabulation for Statement C

			C. Linguistic conflicts affect work conduct in terms of progress and productivity				Total
			Strongly Agree	Agree	Disagree	Strongly Disagree	
Company	Chinese	Count	19	9	3	0	31
		Expected Count	20.4	7.5	2.2	.9	31.0
		% within Company	61.3%	29.0%	9.7%	0.0%	100.0%
	French	Count	27	8	2	2	39
		Expected Count	25.6	9.5	2.8	1.1	39.0
		% within Company	69.2%	20.5%	5.1%	5.1%	100.0%
Total		Count	46	17	5	2	70
		Expected Count	46.0	17.0	5.0	2.0	70.0
		% within Company	65.7%	24.3%	7.1%	2.9%	100.0%

Table 68

Chi-Square Tests for Statement C

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.772[a]	3	.428
Likelihood Ratio	3.515	3	.319
Linear-by-Linear Association	.015	1	.902
N of Valid Cases	70		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .89.

Table 69

Symmetric Measures for Statement C

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	-.064	.115	-.554	.580
	Spearman Correlation	-.066	.120	-.548	.586[c]
Interval by Interval	Pearson's R	-.015	.118	-.122	.903[c]
N of Valid Cases		70			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

While inferior to the critical Chi-square at the 95% level of significance with three degrees of freedom, the value of the liklhood ratio clearly delineates no statistically significant evidence for the variation between variables. Let's take a look how consistent a conclusion this is in comparison with the frequencies displayed on the above table.

The statistics do indeed indicate quite harmoniously comparable results for each level of agreement in both multinationals, with polls distinctly in favor of the positive side:

The frequencies of those who are in concurrence that linguistic conflicts affect work conduct in terms of progress and productivity amount to 90.3% and 89.7% in each company, the first value respresenting the Chinese company as the standard order adopted all throughout, unless indicate otherwise in some settings of a different order: Strongly agree: 61.3% vs. 69.2%; Agree: 29.0% vs. 20.5%.

The recurrence rates of those who are in disconcurrence come to 9.7% and 10.2% for every company: Disagree: 9.7% vs. 5.1%; Stonrgly disagree: 0.0% vs. 5.1%.

D. Communication problems in the workplace can best be solved by

Table 70

The Respective Statistics of Significance and Effect for Statement C

	df	x^2	*L.r*	T_b
Item 1	1	2.491	3.616	.189
Item 2	3	3.934	3.945	-.183
Item 3	3	48.135	61.252	-.738
Item 4	3	10.666	11.207	.264
Item 5	3	4.703	4.825	-.159

From Table 1: $X^2_{0.05}(1) = 3.84$ and $X^2_{0.05}(3) = 7.82$. Thus,

For items 1, 2, and 5, because $X^2_{crit} > L.r$ (i.e., $3.616 < 3.84$; 3.945 and $4.825 < 7.82$), there is no statistical evidence for the relatedness of the distinct company to whether communication problems in the workplace can best be solved *by recruiting multilinguals, by recruiting translators, or by providing training in the language(s) of workers.*

For items 3 and 4, because $X^2_{crit} < L.r$ (i.e., $7.82 < 61.252$ and 11.207), there is strong evidence that whether communication problems in the workplace can best be solved *by imposing English as a common language and by providing training in the language(s) of foremen* is dependent on the company status. In addition, for Item 3, with T_b = -0.738 (i.e., $T_b > 0.5$), the dependence is a very strong one but in the negative sense whereas for item 4, with $T_b = 0.264$ (i.e., $0.29 > T_b$), it is weak.

The crosstabulation statistics layout (Table 10a below) discloses the following:

Item 1: the whole number of participants from both compaiesapprove of the fact that communication problems in the workplace can best be solved by recruiting multilinguals.

Item 2: the great majority of the respondents (54.8% vs 74.4% opting for the first option and 22.6% vs 12.8% for the second; making a total of 77.4% vs. 82.1%, repectively, in each company) stand out for the claim that communication problems in the workplace can best be solved by recruiting translators.

Item 3: it is in this item where divergence in opinions between the two samples speaks for itself manifestly, below we account for the different attitudes maintained by the members of each sample in their respective company of work with the Chinese company always going first in the order of reference to results:

Strongly agrees: 0.0% / 53.8% ; Agree: 6.5% / 15.4%

Strongly disagree: 80.6% / 2.6%; Disagree: 12.9% / 28.2%.

It follows that when the significant majority of sample 2 subjects (69.2%) confirm that communication problems in the workplace can best be solved by imposing English as a common language, quite the opposite view is held among the whopping majority of sample 1 elements (93.5%), whom seemingly are of the inclination that using Arabic and Chinese is better off an alternative.

Item4: to the 61.3% majority of the first sample, provision of training in the language(s) of foremen would best help solve workplace communication problems; notwithstanding, for the 71.8% second sample majority this is most unlikely an alternative answer to the complicated site interpersonal and work-related interactions.

Item 5: provision of training in the language(s) of workers appears to be a good approach to alleviating work-linked communication difficulties in the book of the majority of the respondents from both companies: 45.2% + 12.9% from the first sample hold opinions of conformity to the alternative, as compared to 56.4% + 15.4% from the second sample.

Table 71

Multinationals Crosstabulation for Statement D

Item➔		Item1				Item2				Item3				Item4				Item5				Total		
Multinational status ➔		SD	D	A	SA	SD	D	A	SA	SD	D	A	SA	SD	D	A	SA	SD	D	A	SA			
Chinese	f_o	0	0	0	31	1	6	7	17	0	2	4	25	2	10	9	10	7	6	4	14	31	70	100%
	f_e	0.0	0.0	1.3	29.7	1.3	4.0	5.3	20.4	9.3	3.5	6.6	11.5	4.4	13.3	4.9	8.4	6.6	5.6	5.3	15.9	31.0	70.0	100%
	%	0%	0%	0.0%	100%	3.2%	19.4%	22.6%	54.8%	0.0%	6.5%	12.9%	80.6%	6.5%	32.3%	29.0%	32.3%	19.4%	15.4%	12.9%	45.2%	100%	100%	100%
French	f_o	0	0	3	36	2	3	5	29	21	6	11	1	8	20	2	9	22	9	6	6	39	70	100%
	f_e	0.0	0.0	1.7	37.3	1.7	5.0	6.7	25.6	11.7	4.5	8.4	14.5	5.6	16.7	6.1	10.6	8.4	5.6	5.0	20.1	39.0	70.0	100%
	%	0%	0%	7.7%	92.3%	5.1%	7.7%	12.8%	74.4%	53.8%	15.4%	28.2%	2.6%	20.5%	51.3%	5.1%	23.1%	23.1%	15.4%	5.1%	56.4%	100%	100%	100%
Total	f_o	0	0	3	67	3	9	12	46	21	8	15	26	10	30	11	19	15	10	9	36	70		
	f_e	0.0	0.0	3.0	67.0	3.0	9.0	12.0	46.0	21.0	8.0	15.0	26.0	10.0	30.0	11.0	19.0	15.0	10.0	9.0	36.0	70.0		
	%	0%	0%	4.3%	95.7%	4.3%	12.9%	17.1%	65.7%	30.0%	11.4%	21.4%	37.1%	14.3%	42.9%	15.7%	27.1%	21.4%	14.3%	12.9%	51.4%	100%		
Total	f_o	0	0	3	67	3	9	12	46	21	8	15	26	10	30	11	19	15	10	9	36	70		
	f_e	0.0	0.0	3.0	67.0	3.0	9.0	12.0	46.0	21.0	8.0	15.0	26.0	10.0	30.0	11.0	19.0	15.0	10.0	9.0	36.0	70.0		
	%	0%	0%	4.3%	95.7%	4.3%	12.9%	17.1%	65.7%	30.0%	11.4%	21.4%	37.1%	14.3%	42.9%	15.7%	27.1%	21.4%	14.3%	12.9%	51.4%	100%		

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 1.33. b. Computed only for a 2x2 table	a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 1.33 b. Computed only for a 2x2 table	a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 3.54. b. Computed only for a 2x2 table	a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 4.43. b. Computed only for a 2x2 table	a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 3.99. b. Computed only for a 2x2 table

E. For the overall performance of the company, the uses of languages in the workplace is useful

Table 72

Chi-Square Tests for Statement E

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.372[a]	2	.185
Likelihood Ratio	4.871	2	.088
Linear-by-Linear Association	2.949	1	.086
N of Valid Cases	70		

a. 4 cells (66.7%) have expected count less than 5. The minimum expected count is .44.

Table 73

Symmetric Measures for Statement E

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.218	.056	2.108	.035
	Spearman Correlation	.219	.057	1.855	.068[c]
Interval by Interval	Pearson's R	.207	.053	1.742	.086[c]
N of Valid Cases		70			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Table 74

Multinationals Crosstabulation for Statement E

			E. For the overall performance of the company, the uses of languages in the workplace is useful			Total
			Strongly Agree	Agree	Disagree	
Company	Chinese	Count	31	0	0	31
		Expected Count	29.2	1.3	.4	31.0
		% within Company	100.0%	0.0%	0.0%	100.0%
	French	Count	35	3	1	39
		Expected Count	36.8	1.7	.6	39.0
		% within Company	89.7%	7.7%	2.6%	100.0%
Total		Count	66	3	1	70
		Expected Count	66.0	3.0	1.0	70.0
		% within Company	94.3%	4.3%	1.4%	100.0%

While the X^2 assumption is abused, $4.871 < 5.99$; this negates any assumed statistical significance of the difference between the companies as to whether the uses of languages in the workplace is useful for the overall company performance.

As depicted by table 11c, languages are considered to bear on the well-operation and success of the company as a whole. This is reflected by the whole sample opting for *Strongly agree* in the Chinese company (100%) and an overall vast majority in the French company (97.4%: 89.7% choosing *Strongly Agree,* and 7.7% subscribing for *Agree).*

F. At the workplace, having knowledge of languages is of primary significance.

Applying the same analytical procedure as in the previous item bears out the similar conclusions about the fact that having knowledge of languages is of primary significance at the workplace.

Table 75

Multinationals Crostabulation for Statement F

			F. At the workplace, having knowledge of languages is of primary significance			Total
			Strongly Agree	Agree	Disagree	
Company	Chinese	Count	24	6	1	31
		Expected Count	25.2	4.0	1.8	31.0
		% within Company	77.4%	19.4%	3.2%	100.0%
	French	Count	33	3	3	39
		Expected Count	31.8	5.0	2.2	39.0
		% within Company	84.6%	7.7%	7.7%	100.0%
Total		Count	57	9	4	70
		Expected Count	57.0	9.0	4.0	70.0
		% within Company	81.4%	12.9%	5.7%	100.0%

Table 76

Chi-Square Tests for Statement F

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.540[a]	2	.281
Likelihood Ratio	2.577	2	.276
Linear-by-Linear Association	.043	1	.837
N of Valid Cases	70		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.77.

Table 77

Symmetric Measures fro Statement F

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	-.074	.118	-.627	.530
	Spearman Correlation	-.076	.120	-.626	.533[c]
Interval by Interval	Pearson's R	-.025	.119	-.205	.838[c]
N of Valid Cases		70			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

G. You use more than one language within the company because

Table 78

The Respective Statistics of Significance and Effect for Statement G

	df	x^2	*L.r*	T_b
Item 1	1	16.339	17.006	-.483
Item 2	1	.539	.535	-.088
Item 3	2	3.589	3.965	-.156
Item 4	3	27.438	30.486	-.521
Item 5	1	.521	.517	-.086
Item 6	1	1.332	1.332	-.138
Item 7	3	22.133	24.291	.353

While either the full number of participants or a great majority of them , whatever the case maybe, opted for the options of agreement in virtually each item, only the first and last items (item1 & item7) recorded subscription of the vast majority for the disapproval choices. For this reason the assumption is infringed for all the items save the first. Hence, the Chi-square will be used for Item1 and the likelihood ratio for the rest.

We conjure up from the Chi-square critical values distribution table:

$X^2_{0.05}(1) = 3.84$

$X^2_{0.05}(2) = 5.99$

$X^2_{0.05}(3) = 7.82.$

We also call up Kendall's tau-b effect size coefficient restrictions:

Small: $0.01 < T_b < 0.30$

Medium: $0.30 < T_b < 0.5$

Large: $T_b > 0.5$

If to read off the statistical measures calculated for the first item in the same usual way all along, a misleading conculsion might be arrived at because $X^2_{Item1}(1) = 16.339 > X^2_{Crit.}$ (1) and T_b= -0.483 report on a negatively medium effect statististically significant association between the use of more than one language at the workplace because of company regulations and the company of affiliation. Be that as it may, a commonsensical interpretation would lean on processing what the options are in sooth like and whether they share affinities or part ways in signification at the core. That said, it is noteworthy that both samples in their entirety expressed their attitudes in disagreement with the statement provided; rationality, for that matter, dectates that the responses do in actual fact fall within the same basket in both cases, and this leads to the reasoning that the said dependence is in reality of no particular significance (inexistent). If to apply some logic, in yielding the foregone result assuming attendance of variation between the variables, SPSS is not faulty either, merely because for this software the options are coded and treated as separate and different but we know well that they conflow in essence. Bottom line, although statistics provide strong evidence of a correlation between variables, this is merely due to inability to distinguish between the options once coded and entered into the software; and that is legitimate enough a rationale to nullify the existence of the initially claimed statistical-test-results-based relationship.

Here go frequencies as illustration for each setting: 0% is the recorded rate for the first two options of the scale (Strongly agree and Agree) in both contexts; 25.8% and 74.4% for Disagree; 74.2% and 25.6% for Strongly disagree.

The foregoing explanation of Item1 applies to Items 2, 3, 5, 6 in that there is no statistically significant variance between the variables; except that these items statistics comply with the derived conclusion with no shadows of paradox:

$L.r_{Item2} = 0.535 < 3.84$; (90.3% + 9.7 / 94.9% + 5.1%).

$L.r_{Item3} = 3.965 < 5.99$; (74.2% + 25.8% / 87.2% + 10.3%).

$L.r_{Item5} = 0.517 < 3.84$; (87.1% + 12.9% / 92.3% + 7.7%) .

$L.r_{Item6} = 1.332 < 3.84$; (87.1% + 12.9% / 94.9% + 5.1%).

It is both item 4 and Item 7 that appear of statistical significance in their relationship with the respective company of each sample and this relationship occurs of a negatively large effect and a positively medium effect respectively for each item as:

$L.r_{Item4} = 30.486 > 7.81$ with $T_b = -0.521$; (9.7% + 54.8% / 71.8% + 15.4%).

$L.r_{Item7} = 24.291 > 7.81$ with $T_b = 0.353$; (in disaccord: 74.2% + 19.4% / 20.5% + 66.7%).

Table 79

Multinationals Crosstabulation for Statement G

Item➔																										
	Multinational status ➔		Chinese			French			Total																	
			f_o	f_e	%	f_o	f_e	%	f_o	f_e	%															
Item1	SD		0	0.0	0%	0	0.0	0%	0	0.0	0%															
	D		0	0.0	0%	0	0.0	0%	0	0.0	0%															
	A		0	0.0	0%	0	0.0	0%	0	0.0	0%															
	SA		31	31.0	100%	39	39.0	100%	70	70.0	100%															
	Total		31	31.0	100%	39	39.0	100%	70	70.0	100%															
Item2	SD		0	0.0	0%	0	0.0	0%	0	0.0	0%															
	D		0	0.0	0%	0	0.0	0%	0	0.0	0%															
	A		3	2.2	9.7%	2	2.8	5.1%	5	5.0	7.1%															
	SA		28	28.8	90.3%	37	36.2	94.9%	65	65.0	92.9%															
	Total		31	31.0	100%	39	39.0	100%	70	70.0	100%															
Item3	SD		1	.9	3.2%	1	1.1	2.6%	2	2.0	2.9%															
	D		10	6.2	32.3%	4	7.8	10.3%	14	14.0	20.0%															
	A		17	10.2	54.8%	6	12.8	15.4%	23	23.0	32.9%															
	SA		3	13.7	9.7%	28	17.3	71.8%	31	31.0	44.3%															
	Total		31	31.0	100%	39	39.0	100%	70	70.0	100%															
Item4	SD		0	0.0	0%	0	0.0	0%	0	0.0	0%															
	D		0	0.0	0%	0	0.0	0%	0	0.0	0%															
	A		4	3.1	12.9%	3	3.9	7.7%	7	7.0	10.0%															
	SA		27	27.9	87.1%	36	35.1	92.3%	63	63.0	90.0%															
	Total		31	31.0	100%	39	39.0	100%	70	70.0	100%															
Item5	SD		1	.9	3.2%	1	1.1	2.6%	2	2.0	2.9%															
	D		10	6.2	32.3%	4	7.8	10.3%	14	14.0	20.0%															
	A		17	10.2	54.8%	6	12.8	15.4%	23	23.0	32.9%															
	SA		3	13.7	9.7%	28	17.3	71.8%	31	31.0	44.3%															
	Total		31	31.0	100%	39	39.0	100%	70	70.0	100%															
Item6	SD		0	0.0	0%	0	0.0	0%	0	0.0	0%															
	D		0	0.0	0%	0	0.0	0%	0	0.0	0%															
	A		4	2.7	12.9%	2	3.3	5.1%	6	6.0	8.6%															
	SA		27	28.3	87.1%	37	35.7	94.9%	64	64.0	91.4%															
	Total		31	31.0	100%	39	39.0	100%	70	70.0	100%															
Item7	SD		6	14.2	19.4%	26	17.8	66.7%	32	32.0	45.7%															
	D		23	13.7	74.2%	8	17.3	20.5%	31	31.0	44.3%															
	A		2	1.8	6.5%	2	2.2	5.1%	4	4.0	5.7%															
	SA		0	1.3	0.0%	3	1.7	7.7%	3	3.0	4.3%															
	Total		31	31.0	100%	39	39.0	100%	70	70.0	100%															

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.61. b. Computed only for a 2x2 table	a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.21. b. Computed only for a 2x2 table	a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .44.	a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .89.	a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.10. b. Computed only for a 2x2 table	a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.66. b. Computed only for a 2x2 table	a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 1.33.

H. The following langauges are frequently used every day by employees at the workplace

Table 80

The Respective Statistics of Significance and Effect for Statement H

	df	x^2	*L.r*	T_b
Item 1	1	1.287	.374	.136
Item 2	3	34.312	40.718	-.666
Item 3	3	66.048	86.772	.923
Item 4	3	25.508	34.834	-.570

The assumption rule is flouted for all the items, the liklihood ratio takes over in the reading off of the Chi-Square Tests and Symmetric Measures for all four of them then:

We accept the null hypothesis for Arabic, that there is no influence between the frequency of the Arabic language use everyday in the workplace and the company where the employees work, since $L.r_{Item1} < X^2_{crit}$. Every single one participant from both companies declared Arabic at an invariable frequency of use in the workspace among the site individuals: 96.8% + 3.2% / 89.7% + 10.3%.

In opposition to Arabic, the respective null hypotheses for the remaining languages are refuted, resulting therefore in the acceptance of the corresponding alternative hypothesis for each language, since:

For English, the majority of employees from the Chinese company as compared to the full rate of those from the French company hold firm views that English is of a daily frequent use at work, in contradistinction with the significant minority from the former company assuming the contrary position:

32.3% + 25.8% / 97.4% + 2.6% vs. 35.5% + 6.5% / 0.0%; and

L.r $> X^2_{crit}$, T_b = -0.666, the correlation is negatively strong.

For Chinese, the great most Chinese company sample majority validate the frequent use of the language on a day-to-day basis within their company:

80.6% + 12.9% = 93.5%; and

L.$r_{Item3} > X^2_{crit}$, T_b = 0.923, the association is extremely strong.

Compared to Chinese in the Chinese company, French is reported to be an everyday frequently used language at the rig site by a simple majority in the French company:

12.8% + 48.7% = 61.5%;

L.$r_{Item4} > X^2_{crit}$, T_b = -0.570, the interaction is negatively strong.

Based on the above interpretations, it is to report on the conclusive strong evidence for the statistical large significance of the interplay between each of these last English, Chinese and French and the respondents' respective company of employment.

Table 81

Multinationals Crosstabulation for Statement H

Item➔		Item1				Item2				Item3				Item4				Total
Multinational status ➔		SD	D	A	SA	SD	D	A	SA	SD	D	A	SA	SD	D	A	SA	
Chinese	f_o	0	0	1	30	2	11	8	10	1	1	4	25	1	0	0	30	31
	f_e	0.0	0.0	2.2	28.8	.9	4.9	4.0	21.3	17.7	.4	1.8	11.1	6.6	2.2	1.8	19.9	31.0
	%	0%	0%	3.2%	96.8%	6.5%	35.5%	25.8%	32.3%	3.2%	3.2%	12.9%	80.6%	0.0%	0.0%	0.0%	83.9%	100%
French	f_o	0	0	4	35	0	0	1	38	39	0	0	0	15	5	0	19	39
	f_e	0.0	0.0	2.8	36.2	1.1	6.1	5.0	26.7	22.3	.6	2.2	13.9	8.4	2.8	2.8	25.1	39.0
	%	0%	0%	10.3%	89.7%	0.0%	0.0%	2.6%	97.4%	100%	0.0%	0.0%	0.0%	38.5%	12.8%	0.0%	48.7%	100%
Total		31	31.0	100%		39	39.0	100%										

Total	f_o	65	5	0	0	70	48	9	11	2	70	25	4	1	40	70	15	5	45	5	70
	f_e	65.0	5.0	0.0	0.0	70.0	48.0	9.0	11.0	2.0	70.0	25.0	4.0	1.0	40.0	70.0	15.0	5.0	45.0	5.0	70.0
	%	92.9%	7.1%	0%	0%	100%	68.6%	12.9%	15.7%	2.9%	100%	35.7%	5.7%	1.4%	57.1%	100%	21.4%	7.1%	64.3%	7.1%	100%
		a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.21. b. Computed only for a 2x2 table					a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .89.					a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .44.					a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 2.21.				

I. You prefer to use the following languages for every day communication at the workplace

Table 82

The Respective Statistics of Significance and Effect for Statement I

	df	x^2	$L.r$	T_b
Item 1	3	9.132	11.033	.046
Item 2	3	51.294	68.034	-.799
Item 3	3	28.776	33.288	.616
Item 4	3	23.272	28.065	-.532

At df =3, there seems to be an outstanding difference in the respondents' predisposition of using each language for every day communication at the workplace per company (11.033, 68.034, 33.288 and $28.065 > 7.81$) with a very weak effect size for Arabic (0.046) and an importantly large statistical significant effect for English (negatively strong: -0.799), Chinese (positively strong: 0.616) and French (negatively strong: -0.532).

Table 83

Multinationals Crosstabulation for Statement I

Item➔		Item1				Total	Item2				Total	Item3				Total	Item4				Total
Multinational status ➔		SD	D	A	SA		SD	D	A	SA		SD	D	A	SA		SD	D	A	SA	
Chinese	f_o	4	3	1	23	31	5	6	20	0	31	11	11	1	8	31	16	13	2	0	31
	f_e	1.8	4.9	3.1	21.3	31.0	2.2	2.7	11.5	14.6	31.0	3.5	5.8	.4	3.5	31.0	8.4	4.9	6.1	11.3	31.0
	%	12.9%	9.7%	3.2%	74.2%	100%	16.1%	19.4%	64.5%	0.0%	100%	25.8%	35.5%	3.2%	25.8%	100%	51.6%	41.9%	6.5%	0.0%	100%
French	f_o	0	8	6	25	39	0	0	6	33	39	0	2	0	0	39	3	17	9	10	39
	f_e	2.2	6.1	3.9	26.7	39.0	2.8	3.3	14.5	18.4	39.0	4.5	7.2	.6	4.5	39.0	10.6	16.7	6.1	5.6	39.0
	%	0.0%	20.5%	15.4%	64.1%	100%	0.0%	0.0%	15.4%	84.6%	100%	0.0%	5.1%	0.0%	94.9%	100%	7.7%	43.6%	23.1%	25.6%	100.0%

Total	f_o	48	7	11	4	70	33	26	6	5	70	8	1	13	48	70	10	11	30	19	70
	f_e	48.0	7.0	11.0	4.0	70.0	33.0	26.0	6.0	5.0	70.0	8.0	1.0	13.0	48.0	70.0	10.0	11.0	30.0	19.0	70.0
	%	68.6%	10.0%	15.7%	5.7%	100%	47.1%	37.1%	8.6%	7.1%	100%	11.4%	1.4%	18.6%	68.6%	100%	14.3%	15.7%	42.9%	27.1%	100%
		a. 5 cells (62.5%) have expected count less than 5. The minimum expected count is 1.77					a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 2.21.					a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .44.					a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 4.43.				

Arabic: consistently comparable high proportions of making the most of Arabic for communication per diem within both contexts is made obvious by the obtained results:

Chinese Company: 74.2% + 3.2% = 77.4%.

French company: 64.1% + 15.4% = 79.5%.

English: a clear majority of the company 1 participants showed proclivity towards using English very so regularly to satisfy quotidian interpersonal and work-related interaction instances: 64.5%; again, company 2 sample displayed unconditional propensity of using English at the most full frequency every day (84.6% + 15.4%= 100%).

Chinese: Chinese seems to be voted for a language gaining tendency of use in day-to-day work context communication only by its native speakers in the Chinese company, whose rate corresponds to a minority: 25.8% + 3.2% = 29%.

French: only a tiny minority in the Chinese company against a slim minority in the French company expressed their disposition of using French: 6.5% vs. 25.6% + 23.1%=48.7%. Said differently, a clearly huge majority of 41.9% + 51.6% = 93.6% from company 1 sample compared with a bare majority of 43.6% + 7.7%= 51.3% from company 2 sample demonstrated disinclination towards using French for their workaday interaction on a daily basis in their respective work milieux.

J. At work, you prefer to hold contact more with

Table 84

The Respective Statistics of Significance and Effect for Statement J

	df	x^2	*L.r*	T_b
Item 1	1	.006	.006	.010
Item 2	3	3.363	4.480	-.014
Item 3	3	23.223	25.259	-.548
Item 4	2	33.339	38.180	.664
Item 5	3	32.096	37.666	-.570

Multilinguals are the top-most preferred category to hold contact with by faithfully each and every single one participant employee in both samples. Next in the chain of order is Arabic by an outstanding majority of 67.7% + 12.9% in the Chinese company, and 71.8% + 7.7% in the French company. English follows Arabic in the queue by a fine majority (32.3% + 22.6%) in the first-mentioned company, but surpasses it with an all but few percent majority (87.2% + 7.7%) in the last-mentioned.

The converging/diverging attitudes of employees in both multinattionals towards the linguistic profile(s) preferred to hold work-related interactions with more are checked against by means of likelihood ratio calculation (Tables 84):

The invariance is clear for multilinguals (*df*=1, $\alpha = 0.05 \rightarrow 0.006 > 3.84$) and for Arabophones (*df*=3, $\alpha = 0.05 \rightarrow 4.48 < 7.81$). The opposite views towards Anglophones, Sinophones and Franchophones are not a mere incidence of chance (*df*= 3, $\alpha = 0.05 \rightarrow 25.259 > 7.81, T_b$= -0.548; $df = 2, \alpha = 0.05 \rightarrow 38.180 > 5.99, Tb = 0.664$; $and\ df = 3$, $\alpha = 0.05 \rightarrow 37.666 > 7.81, Tb = -0.570$).

Table 85

Multinationals Crosstabulation for Statement J

Item➔																										
		Item1						Item2						Item3						Item4						Item5					
Multinational status ➔		SD	D	A	SA	Total		SD	D	A	SA	Total		SD	D	A	SA	Total		SD	D	A	SA	Total		SD	D	A	SA	Total	
Chinese	f_o	0	0	3	28	31		0	6	4	21	31		2	12	7	10	31		8	15	8	0	31		8	8	2	0	31	
	f_e	0.0	0.0	3.1	27.9	31.0		1.3	4.9	3.1	21.7	31.0		.9	6.2	4.4	19.5	31.0		19.5	8.0	3.5	0.0	31.0		14.6	1.3	4.4	31.0		
	%	0%	0%	9.7%	90.3%	100%		0.0%	19.4%	12.9%	67.7%	100%		6.5%	38.7%	22.6%	32.3%	100%		25.8%	48.4%	25.8%	0%	100%		25.8%	6.5%	0.0%	100%		
French	f_o	0	0	4	35	39		3	5	3	28	39		0	2	3	34	39		36	3	0	0	39		25	1	10	39		
	f_e	0.0	0.0	3.9	35.1	39.0		1.7	6.1	3.9	27.3	39.0		1.1	7.8	5.6	24.5	39.0		24.5	10.0	4.5	0.0	39.0		18.4	1.7	5.6	39.0		
	%	0%	0%	10.3%	89.7%	100%		0.0%	12.8%	7.7%	71.8%	100%		0.0%	5.1%	7.7%	87.2%	100%		92.3%	7.7%	0.0%	0%	100%		64.1%	2.6%	25.6%	100%		
							100%						100%						100%						100%						100%

Total	f_o	63	7	0	0	70	49	7	11	3	70	44	10	14	2	70	0	8	18	44	70	10	3	33	24	70
	f_e	63.0	7.0	0.0	0.0	70.0	49.0	7.0	11.0	3.0	70.0	44.0	10.0	14.0	2.0	70.0	0.0	8.0	18.0	44.0	70.0	10.0	3.0	33.0	24.0	70.0
	%	90.0%	10.0%	0%	0%	100%	70.0%	10.0%	15.7%	4.3%	100%	62.9%	14.3%	20.0%	2.9%	100%	0%	11.4%	25.7%	62.9%	100%	14.3%	4.3%	47.1%	34.3%	100%
		a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.10. b. Computed only for a 2x2 table					a. 5 cells (62.5%) have expected count less than 5. The minimum expected count is 1.33.					a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is .89.					a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.54					a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 1.33.				

K. Multinational companies, including the one you are working in currently, do hire translators

Since $32.113 > 5.99$ with T_b= -0.628, it occurs as if there is strong evidence of statistically significant interrelation with a negatively strong effect between the hiring of translators and the respective company of the respendents. But the thing is that the all the participant employees of both samples, save 2 individuals from the second, refute any such recruitment to be in action. For this reason, and because SPSS does not draw differences between the options, it is with justification that we claim confidently that the relationship is barely ever in ocuurence.

Table 86

Multinationals Crosstabulation for Statement K

			K. Multinational companies, including the one you are working in currently, do hire translators			Total
			Agree	Disagree	Strongly Disagree	
Company	Chinese	Count	0	11	20	31
		Expected Count	.9	20.4	9.7	31.0
		% within Company	0.0%	35.5%	64.5%	100.0%
	French	Count	2	35	2	39
		Expected Count	1.1	25.6	12.3	39.0
		% within Company	5.1%	89.7%	5.1%	100.0%
Total		Count	2	46	22	70

	Expected Count	2.0	46.0	22.0	70.0
	% within Company	2.9%	65.7%	31.4%	100.0%

Table 87

Chi-Square Tests for Statement K

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.710[a]	2	.000
Likelihood Ratio	32.113	2	.000
Linear-by-Linear Association	27.127	1	.000
N of Valid Cases	70		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .89.

Table 88

Symmetric Measures for Statement K

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	-.628	.080	-6.685	.000
	Spearman Correlation	-.636	.082	-6.800	.000[c]
Interval by Interval	Pearson's R	-.627	.078	-6.637	.000[c]
N of Valid Cases		70			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

L. In multinationals, promotions and assignment of work positions are determined by work experience only

Table 89

Multinationals Crosstabulation for Statement L

			L. In multinationals, promotions and assignment of work positions is determined by work experience only			Total
			Agree	Disagree	Strongly Disagree	
Company	Chinese	Count	1	2	28	31
		Expected Count	1.3	14.6	15.1	31.0
		% within Company	3.2%	6.5%	90.3%	100.0%
	French	Count	2	31	6	39
		Expected Count	1.7	18.4	18.9	39.0
		% within Company	5.1%	79.5%	15.4%	100.0%
Total		Count	3	33	34	70
		Expected Count	3.0	33.0	34.0	70.0
		% within Company	4.3%	47.1%	48.6%	100.0%

Table 90

Chi-Square Tests for Statement L

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.657[a]	2	.000
Likelihood Ratio	45.528	2	.000
Linear-by-Linear Association	30.237	1	.000
N of Valid Cases	70		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.33.

Table 91

Symmetric Measures for Statement L

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	-.695	.090	-7.960	.000
	Spearman Correlation	-.708	.090	-8.267	.000[c]
Interval by Interval	Pearson's R	-.662	.101	-7.283	.000[c]
N of Valid Cases		70			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Following the same procedures as in the previous Item, the same conclusion are drawn. So, based on the logic of the software there is a negatively very strong association between whether promotions and assignment of work positions is determined by work experience only and the company of belongingness. Nonetheless, that subscriptions in their whopping majority (6.5% + 90.3% and 79.5% + 15.4%) are under the sway of dissension with the statement repudiates maintannace of any relation between variables.

M. Those who are more appropriate for better work positions and for the company productivity are

To start with, the assumption is infringed for all the items but the first. In any case, the Chi-square will be used in the latter case and the likelihood ratio in the former.

If to read off the square statistics without further teasing the whole matter at stake in the core from a more commonsense-leaned perspective, a software-logic-based putting forward of results report on a negatively medium effect statististically significant interrelation between whether the multilingual profile is more appropriate for better work positions and for the company productivity and the respective company of the respondents, since $X^2_{Item1}(1)= 14.922 > X^2_{Crit.}(1) = 3.84$ and $T_b= -0.462$.

Nevertheless, it is worth mentioning that the participants of both samples all together expressed their positive views in support of the statement put in their disposition. Reasonably enough, the said relationship is in reality insignificant. Bottom line, even though statistics evince a dependence between variables, this is solely owing to failure in telling the options apart in the coding process; that is as may be, the initially claimed statistics-based relationship is in effect absent. All the respondents of both sample (Strongly) agreed on the cardinal appropriateness of multilinguals for key work positions and for more productivity in the company.

For the remaining items, statistically speaking, there is a statistically significant variance between the variables:

- The difference appear of a positively weak effect for Item 2 and of a positively strong effect for Item4:

$L.r_{Item2} = 19.428 > 7.81$ with $T_b = 0.099$.

$L.r_{Item4} = 65.442 > 7.81$ with $T_b = 0.797$.

- For both item 3 and Item 5, the relationship occurs of a negatively large effect:

$L.r_{Item4} = 34.777 > 5.99$ with T_b = -0.585.

$L.r_{Item7} = 30.101 > 7.81$ with T_b = -0.629.

Table 92

The Respective Statistics of Significance and Effect for Statement M

	df	x^2	*L.r*	T_b
Item 1	1	14.922	16.511	-.462
Item 2	3	16.849	19.428	.099
Item 3	2	27.086	30.101	-.585
Item 4	3	52.594	65.442	.797
Item 5	3	30.631	34.777	-.629

Table 93

Multinationals Crosstabulation for Statement M

Item➔		Item1				Total	Item2				Total	Item3				Total	Item4				Total	Item5				Total	Total
Multinational status ➔		SD	D	A	SA		SA	SD	D	A		A	SA	SD	D		SD	SA	A	D		SD	D	A	SA		
Chinese	f_o	0	0	12	19	31	6	10	6	9	31	0	24	4	3	31	8	9	12	2	31	25	6	0	0	31	70
	f_e	0.0	0.0	5.8	25.2	31.0	2.7	17.7	4.4	6.2	31.0	0.0	14.6	2.7	13.7	31.0	3.5	4.0	6.6	16.8	31.0	13.7	14.2	2.2	.9	31.0	70.0
	%	0%	0%	38.7%	61.3%	100%	19.4%	32.3%	19.4%	29.0%	100%	0%	77.4%	12.9%	9.7%	100%	25.8%	29.0%	38.7%	6.5%	100%	9.7%	19.4%	0.0%	0.0%	100%	100%
French	f_o	0	0	1	38	39	0	30	4	5	39	0	9	2	28	39	0	0	3	36	39	28	26	5	2	39	70
	f_e	0.0	0.0	7.2	31.8	39.0	3.3	22.3	5.6	7.8	39.0	0.0	18.4	3.3	17.3	39.0	4.5	5.0	8.4	21.2	39.0	17.3	17.8	2.8	1.1	39.0	70.0
	%	0%	0%	2.6%	97.4%	100%	0.0%	76.9%	10.3%	12.8%	100%	0%	23.1%	5.1%	71.8%	100%	0.0%	0.0%	7.7%	92.3%	100%	71.8%	66.7%	12.8%	5.1%	100%	100%
Total	f_o	0	0	13	57	70	6	40	10	14	70	0	33	6	31	70	8	9	15	38	70	31	32	5	2	70	

	f_e	57.0	13.0	0.0	0.0	70.0	14.0	10.0	40.0	6.0	70.0	31.0	6.0	33.0	0.0	31.0	8.0	9.0	15.0	38.0	70.0	2.0	5.0	32.0	31.0	70.0
	%	81.4%	18.6%	0%	0%	100%	20.0%	14.3%	57.1%	8.6%	100%	44.3%	8.6%	47.1%	0%	100%	11.4%	12.9%	21.4%	54.3%	100%	2.9%	7.1%	45.7%	44.3%	100%
		a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.76.					a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 2.66.					a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.66.					a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 3.54.					a.4 cells (50.0%) have expected count less than 5. The minimum expected count is .89.				

N. Multinationals hire employees based on

Table 94

Multinationals Crosstabulation for Statement N

Item➔		Item1				Total	Item2				Total	Item3				Total
Multinational ↓status		SA	A	D	SD		SA	A	D	SD		SA	A	D	SD	
Chinese	f_o	0	0	18	13	31	0	0	19	12	31	18	10	3	0	31
	f_e	0.0	.9	15.5	14.6	31.0	0.0	0.0	14.2	16.8	31.0	25.2	4.4	1.3	0.0	31.0
	%	0%	0.0%	58.1%	41.9%	100%	0%	0%	61.3%	38.7%	100%	58.1%	32.3%	9.7%	0%	100%
French	f_o	0	2	17	20	39	0	0	13	26	39	39	0	0	0	39
	f_e	0.0	1.1	19.5	18.4	39.0	0.0	0.0	17.8	21.2	39.0	31.8	5.6	1.7	0.0	39.0
	%	0%	5.1%	43.6%	51.3%	100%	0%	0%	33.3%	66.7%	100%	100%	0.0%	0.0%	0%	100%
Total	f_o	0	2	35	33	70	0	0	32	38	70	57	10	3	0	70
	f_e	0.0	2.0	35.0	33.0	70.0	0.0	0.0	32.0	38.0	70.0	57.0	10.0	3.0	0.0	70.0
	%	0%	2.9%	50.0%	47.1%	100%	0%	0%	45.7%	54.3%	100%	81.4%	14.3%	4.3%	0%	100%
		a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .89.					a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.17.					a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.33.				

The Chi-square assumption rule is flouted for all the items except Item2; X^2 will be used for the latter and L.r for the other two.

Table 95

The Respective Statistics of Significance and Effect for Statement N

	df	x^2	*L.r*	T_b
Item 1	2	2.634	3.381	.062
Item 2	1	5.440	5.497	.279
Item 3	2	20.085	25.028	-.525

There is no statical significance for the variance between rectruitment of employees based on languages proficiency only, irrespective of work experience and the corresponding company of the respondents because all of the respondents of both samples, but two from the first,(strongly) disapproved of the idea: 3.381 does not compare to 5.99.

Item2 There is a statistically significant weak variation between hiring of employees based on work experience alone, irrespective of language proficiency and each company: 5.44> 3.84 and T_b= 0.279. Both samples entirely refused the validity of any such claim that work experience solely serves as a measure for hiring of employees by the multinationals.

Item3 There is a statistically significant positively strong variation between employment of employees based on proficiency in languages together with work experience and each company: 25.028 > 5.99 and T_b= 0.525. This goes to the fact that all the sample members from the second company strongly agreed with the item statement while the attitudes of the sample 1 subjects varied between a clear majority for Strongly agree and a good minority for Agree, with yet a marginal minority for Disagree.

O. Presence of several languages at the workplace is

Table 96

Multinationals Crosstabulation for Statement O

Item➔		Item1				Total	Item2				Total
Multinational ↓status		SA	A	D	SD		SA	A	D	SD	
Chinese	f_o	27	4	0	0	31	0	0	18	13	31
	f_e	27.9	3.1	0.0	0.0	31.0	.4	.9	21.3	8.4	31.0
	%	87.1%	12.9%	0%	0%	100%	0.0%	0.0%	58.1%	41.9%	100%
French	f_o	36	3	0	0	39	1	2	30	6	39
	f_e	35.1	3.9	0.0	0.0	39.0	.6	1.1	26.7	10.6	39.0
	%	92.3%	7.7%	0%	0%	100%	2.6%	5.1%	76.9%	15.4%	100%
Total	f_o	63	7	0	0	70	1	2	48	19	70
	f_e	63.0	7.0	0.0	0.0	70.0	1.0	2.0	48.0	19.0	70.0
	%	90.0%	10.0%	0%	0%	100%	1.4%	2.9%	68.6%	27.1%	100%
		a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.10. b. Computed only for a 2x2 table					a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .44.				

Table 97

The Respective Statistics of Significance and Effect for Statement O

	df	x^2	*L.r*	T_b
Item 1	1	.521	.517	-.086
Item 2	3	7.766	8.915	-.323

The likelihood ratio (*L.r* =0.517) is substantially far less than 3.84, so there is no statistically significant company-based characteristic difference in whether presence of several languages at the workplace is advantageous and rewarding. Percentages on Table 96 reflect that all of the respondent sample members from both companies go along entirely with the idea that workplace language diversity involves favourable circumstances that increase the opportunities of success.

From Table 16a, at *df*=3, the critical square value is 7.81 which is less than L.r = 8.915, and $T_b = -0.323$ represents an effect which is of a negatively medium size. There is a statistically significant depedndence of the degree of disapproving that presence of several languages at the workplace is disadvantageous and hinders communication on the respondents' company. It is obvious from Table 96 that the participants from both companies take a dim view of the fact that having more languages than a single one present in the milieu of work creates unfavourable circumstances that reduce the chances of effectiveness.

Part Three: Open-ended Questions

This closing part of the questionnaire comprised a set of three open-ended questions asking the participants to allow for any comments perceived relevant. The respondents were given generous free spaces for each question/item to express themselves freely. They were allowed to expound on any recommendations, suggestions and additions they could come up with; so in this way, and based on the way the questions/item statements were phrased, the informants were given the impression that the researcher considers them as professionals and that their views do matter much. Although not everyone answered in this part, a good number of interesting responses were collected.

1. ***Please write down here any other language(s), if any, used than those mentioned on the tables above:***

Only the local language (Tamaright/Berber) was indicated by the rspondednts:

- ✓ الامازيغية

2. ***What do you recommend to overcome communication difficulties, if any, caused by the use of multiple languages in your company?***

The responses provided by the participants for this question address linguistic and socio-professional matters, they rage as follows:

- ✓ الاستفادة من بعضهم البعض كل احد يتقن لغة يقوم بشرحها للصديق الذي لا يتقنها
- ✓ تعلم الانكليزية
- ✓ دراسة اللغات والعمل بها وتشجيع تعلم اللغات المشهورة في العمل في الشركات المختلفة دون التمييز بينها
- ✓ مترجم
- ✓ دورات في اللغة
- ✓ التعلم و التدرب

- ✓ المثابرة لتعلم العديد من اللغات
- ✓ ان يتم فرض اتقان لغتين على الاقل اثناء التوظيف
- ✓ من المفروض تبجيل العربية واعطائها الاولوية لانها لا تتطلب مجهود خاصة ان الاغلبية يتكلمونها
- ✓ اعطاء المناصب العليا للموظفين المحليين وليس العكس
- ✓ اتقان اللغة التي تستعمل اكثر من اللغات الاخرى اثناء العمل

- ✓ Accepter l'autre dans toute sa différence
- ✓ Investissement dans la formation linguistique
- ✓ Fait des formations
- ✓ Il faut encourager et sensibiliser tout le monde aux divers enjeux d'ordre linguistique
- ✓ Communication
- ✓ By reducing unconscious bias in the workplace, and reinforcing diversity and inclusion of mutlinationalities /multilanguage speakers
- ✓ Try to learn as much as you can and do not be intimidated by other's languages

3. ***If there is anything else that is not included on the tables above and you think it is important to add, or you would like to provide any recommendations, please use the free space below.***

The following represent the different answers obtained from the participants in response to the above question:

- ✓ الخلط في استعمال لغات مختلفة في بيئة العمل التقنية يضعف المردودية في الانتاج ويجعل العمل فوضويا لذا افترح ان تكون لغة العمل موحدة ولتكن عربية او انجليزية وان تكون لغة العلاقات الاجتماعية خليطا من كل اللغات لايهم ذلك لان ذلك يثري ثقافة العمال في اكتساب لغات اخرى خارج اطار العمل ويوطد العلاقات الانسانية بين العمال.
- ✓ الصرامة في العمل والمرونة في التعامل مع الاخرين

- ✓ توضيف اساتذة اللغة الأجنبية لتقديم دروس خاصة بالعمال
- ✓ ارى انك لم تتطرق في الجدول الى الخلفية اللغوية للمستجوب (language background) التي كان يدرس بها وكذالك المستوى التعليمي للمستجوب و هذا سيعطيك أكثر دقة ومنطقية في الربط بين الأجوبة
- ✓ شركتنا لا تهتم باللغة كثيرا لان الجانب العملي و الخبرة المهنية هما المهمان
- ✓ شكرا

- ✓ The table contains the most accurate details, but I can add some points, including the priority for country owners in job positions, of course, with the availability of professional and intellectual competence, in addition to encouraging language learning across the entire national territory through language training courses.

5.3. Conclusion

The present chapter provided a thorough presentation and analysis of the study's quantitative data. The analysis was made in a comparative fashion between the responses of two groups of employees from two different multinationals based in the south of Algeria. The frequency and prevalence of use of the languages is looked at both severally in respect to the individual companies (using percetages and frequencies) and comparatively in a cross-company juxtaposition of the results (in light of the good of fitness test). This approach allowed the discernment of a conclusion that while linguistic diversity is characteristic of both multinationals, the languages used and their degrees of use vary from one company to the other. Linguistic diversity is found to be advantageous and highly valued in the settings. To further research the issue a qualitative study was undertaken. The subsequent chapter concerns itself with the analysis of the qualitative data collected through interviews.

Chapter Six

Interview Results Presentation and Analysis

6.1. Introduction

This chapter provides an analysis of the data obtained from the interviews. Conducted after the statistically analyzed questionnaire, the interviews were of a qualitative nature. The interviewees were a mixed group of nine male employees in both managerial and subordinate work positions mainly from three different multinationals, all located in the south of Algeria. In the interviews, in addition to biographical data and background information, data were collected on opinions about linguistic plurality and language choice/practices in the workplaces. This chapter first begins with general description of and explanations about the interviews, and then proceeds with the analysis of the data. It is in chapter IV (Methodological Framework) that a brief part of the account about the interviews is allowed for.

6.2. Description of the Interview

In the interview similar questions were asked as the questionnaire. As the interview was developed and designed simultaneously with the questionnaire, its conduct after the questionnaire data were obtained allowed a better reformulation and orientation of the questions. Like the questionnaire, the interview opened with a brief introduction about the researcher as a scholar and university lecturer, and broad background information about the aim of the study. It was emphasized that any information relating to the participants' identities and the identities of their working multinationals will be kept entirely anonymous and confidential. Despite so, some informants were noticed to be vaguely refraining from providing certain information details.

The resource employees were interrogated using a flexible guide schedule with a range of open(-ended) and adaptable questions prepared beforehand. Given the relaxed, easy-going atmosphere set in a mood of an extemporaneous-like conversation, the

participants had a wide room of opportunity to talk about any other topics deemed relevant. The interview guiding set of questions comprised basic details about the respondent and the firm, the level of employees' multilingual proficiency, language requirements and practices, workplace linguistic realities and cultural differences, company language policy as well as education and other things.

Since the communication tool used significantly affects the quality and quantity of the information provided, the respondents were invited to express themselves in any language giving them a feel of ease, including mother tongue. It is important to note that code-switching is also highly encouraged especially with those individuals whose foreign language fluency is below excellent and whose native language(s) could give a hard time to the researcher to understand (namely, Chinese). This was noticed to have given a remarkable boost to the informants' confidence to speak, because first they were happy to demonstrate their ability to converse in several languages and also because this way they were better able to self-express more readily. However, the Chinese were kindly invited to speak in English given the researcher's limited knowledge of Mandarin. The main languages used in the interviews were Arabic, Chaoui (a veriety of Berber/Tamazight), English, and French, with some alternation between two or more of them with some respondents. For more, the Chinese could not help but occasionally shift back to their mother language during the interaction.

6.3. Interview Target Settings and Participants

Recurrently mentioned previously, the target settings of the study are petroleum multinationals operating in Algeria. These are world corporations specialized in oil extraction, refinement and reproduction, offshore and inshore. The Algerian multinational principal executive office is in Hydra, Algers, with 154 subsidiaries. As a state-owned, it

is the first largest oil consortium in Africa, and the twelfth in the world, with more than 120,000 employees. The French company has roughly 100,000 employees from over 140 nationalities working in more than 85 countries. It has four major headquarters located in Paris, London, Houston and the Hague. The Chinese company is not as old but is roughly as big. Each company has daughter companies in different counties. The surveyed corporations are of the complex organizational structure type and comprise huge numbers of employees worldwide (counting the workforces of all the affiliates of a parent company). Their affiliates in Algeria have several operating rigs, with an evenly distributed number of employees in each rig. It is important to note that one of the participants was from a fourth different company, but we chose to consider his answers occasionally merely as a backup while overlooking inclusion of the company he is working for in the collection of the case studies considered.

The case corporations have an organizational routine practice for labor days and hours. They have a system of four-week layoff four-week take on; employees' professional post occupation in the corporations runs on the basis of 12-hour toil a day for 28-days work stretches. The approximate number of employees in each set per rig is 70. Each of the sets is divided into two equal halves, which are further separated into two subgroups, one group substitutes for the other as the 12-working hours of the latter group comes to an end. On a regular basis, by the end of the allocated month work, the working party goes out while the other substitutive team comes in.

While the initial policy of the researcher was to gain access to the target settings and meet with more participants in person for a more comprehensive investigation of the linguistic realities in the sites and language practices among employees, this plan of action grounded to a halt owing to coercive circumstances caused mainly by the Covid-19 pandemic, which resulted in long quarantine and confinement periods. All companies were

in lockdown. Luckily, thanks to a resource person (a family member, working in a worldwide pioneering hydrocarbon corporation in the Middle East, and who formerly worked in many of the multinationals functioning in Algeria) who helped in establishing contact with some employees, the researcher could manage reaching out to more employees by means of snowballing. The sample comprised nine informants of various nationalities working in different multinationals operating in Algeria. Four of the sample members were Algerian nationals, and the rest were expatriates: two Chinese, one Indian, one French, and one Malaysian.

Some details about the companies as well as basic biographical and background data about the subjects were obtained during the interviews, but the main focus was on opinions and attitudes about workplace (linguistic) diversity, as well as information about language skills, practices and knowledge. Again, it was agreed that identities as well as private and sensitive information about both the individual employees and their employers should remain confidential, and no details which are conceived possible to lead to the identification of the concerned parties would be revealed. Accordingly, on account of the anonymity no names are mentioned, only limited, relevant background information about the concerned subjects and settings is disclosed.

In the surveyed corporations the information had to be obtained from more than one informant because of the distinctive nature of and the way work is distributed within each company. In this manner the information provided by each participant was supplemented with the additional data provided by (an)other respondent(s) from the same firm. The multinationals are all related to workplace diversity, mainly linguistic, and belong to the same sector of hydrocarbon. As will be seen later on in the chapter, the individuals and companies investigated make use of various languages to different degrees.

The actors speak daily with each other and with the different units and departments of their respective multinational companies. This continuous interaction for work –and for socialization as the informal side of it but which indirectly contributes to the work conduct alike– creates a speech community whose main concern is to achieve company business goals in the most effective way, calling efficient linguistic practices to the fore. Particularly in a position of regular contact with the structures of the corporation at different levels, the foremen are the keystone group in the vertical and horizontal diffusion of information and instructions. Held in a set of different languages, based on the requirements of the situation, these correspondences differ from one level of the organization to another; while in the rigs employees usually pay no attention to the formality of the speech (including some briefings) and the accuracy of language, inter-unit communication is more formal, organized, and structured in all the languages used.

With cosmopolitan workforces, multinationals become naturally diverse settings housing miscellaneous cultural and linguistic backgrounds. Such heterogeneity of origins in multinational workplace settings oftentimes gives rise to language barriers and communication problems, a typical issue which some of the interviewees indicate to be at a medium level of recurrence especially with regard to individuals lacking multilingual competency.

Including both male nationals and expatriates of different ages (ranging from 30 to 60 years) and work positions, the sample members vary in their educational levels and academic achievements: from university graduates through professional degree holders to school dropouts. Some specialized in some hydrocarbon study domain at university or in an institute while others have no such accreditation. Some of the latter demographic have been integrated into middle managerial positions by virtue of their functional experience accumulated over the years while working for and moving between multinationals. These

individuals expressed that anyone with enough know-how, and after some dedication to training and courses, can pass the so-called 'Well Control' tests (there are at least three similar tests, the more advanced of which require the mastery of the content of the previous ones). Passing either or all of the 'Well Control' tests results in a certificate testifying the corresponding competency level and authorizing access to higher posts within the corporation fieldwork rigs.

6.4. Interview Data Gathering Techniques, Procedures and Analysis

The respondents were expected to provide varying perspectives on linguistic practices in the workplace, since the respondents differ in their competences in languages, their experiences at work, and their respective positions and functions in their company of work. In the case of linguistic competency, for instance, if a polyglot can enjoy and appreciate the value of mastering several languages, a monolingual may not value the skill of speaking a set of languages as much since they do not personally experience the privilege. Also, regarding work experience, some individuals may have more accumulated experience in multinationals based either on the number of years on the job or the number of multinationals they worked for thereto. The roles and occupations held by the informants, as well, considerably affect their attitudes towards workplace language practices; a manager or senior employee, for example, is expected to demonstrate more awareness compared to a laborer as regards use, status, and value of some language(s) in view of their position which requires recurrent interactions with the work team and regular communication at different levels and units.

It is by means of the interviews that the researcher could gain a deeper reading into and a better comprehension of the perceptions that informants hold vis-à-vis linguistic and cultural diversity and its consequences in the workplace. The interviews were meant to be

semi-structured to give more freedom for the interviewees to express themselves, and simultaneously enable the researcher to spontaneously pursue potential issues of concern which informants might mention during the interview. Varying depending on the work circumstances and events, a more profound appraisal of the linguistic competencies, linguistic realities, and language practices in the workplace is achievable with a semi-structure approach.

The questions of the interview are mainly open-ended, with just a few being close-ended. This is to allow for an appropriate gathering of responses regarding the actual uses and organization of languages amid multinational companies operating in Algeria. Due to the Covid-19 pandemic which enforced a worldwide quarantine and curfew, the researcher could not gain direct access to the fieldwork settings nor meet with the participants in person. The researcher has instead managed to reach out to the sample members alternatively, in a kind of snowball sampling, by virtue of some resource persons who themselves took part in the study being employees in Algerian-based multinationals. The snowballing technique proved helpful in achieving a good number of nationality-mixed participants.

Held in the autumn 2020, the interviews lasted between 25 to 40 minutes each. Because the interviews were in a form of phone calls (via WhatsApp and Messenger) they were only voice-recorded and could not be video-taped; aborting therefore the advantage of observing and taking additional notes while reading through the informants' affect (i.e., gestures and facial expressions). Expectedly, as such, during the analysis of the results focus should also be on the pauses, hesitations and different voice tones occurring during the session along with the discourse content.

Occasionally reluctant to reveal some sensitive information or details of privacy, the informants were otherwise collaborative answering the queries and discussing the

issues in question with the researcher; they expounded on their personal experiences and perceptions and sometimes shared interesting anecdotes.

Following the flexible interview guide designed beforehand, the researcher asked the informants more or less the same questions. Allowing plenty of room for follow-up questions, the discussion guide helped conduct the interviews in the shape of a conversation. Inspired by Johnson and Weller's (2002) elicitation techniques, the researcher smoothly engaged the interviewees in an interactive mood where they were initially asked to describe their daily routine work, the kinds of activities and instances in which one language or another is used and the situations giving rise to communication difficulties and linguistic conflicts or problems.

Because on some occasions the interviewees offered irrelevant details and explanations and deviated from the main topic, the full content of the interviews was not transcribed word-for-word. For an appropriate analysis of the qualitative data, detailed summaries of the pertinent information for each interview were composed and used in conjunction with the voice-recordings of the interviews. The summaries were not written in the respective language of each interviewee, but rather in English. Illustrative interview extracts were later transcribed and excerpted in the analysis. Any quoted parts in other languages are translated into English by the author. The passages are excerpted in the respective language of each informant and the English-translation of each of the original statements is enclosed in parentheses successively. Important to indicate also is that the Chinese were less proficient manipulators of English, and the researcher could not afford running the interviews in Chinese due to his limited knowledge of the language; in this way the excerpts from the interviews held with the Chinese are quoted word for word as they were expressed by the participants. This is to say that the quotes are preserved in

their original shape to avoid any distortion of the original ideas; while no bias whatsoever is assumed against any group of participants.

As the researcher is a native speaker of both Arabic and Chaoui and has deferring degrees of competence ranging from proficient to basic knowledge in English, French, Spanish and German, the individual informants were given the privilege of expressing themselves in any of the languages at their best convenience. Although some participants made it clear that they possess varying skill levels in Spanish and German, the languages included were: Arabic, Chaoui, English and French. Again, as stated above, because the researcher's linguistic competence in Chinese is limited, the interviews involving Chinese participants were mainly conducted in English.

It is important to note that even though the researcher's initial plan was that all interviews would be transcribed and treated using ATLAS (Qualitative Data Analysis software), the idea was later on abandoned for a number of underlying inconveniences and reasons after the interviews were conducted. Otherwise, data was treated in a way that draws attention to the different correlations between the various responses. The following stand for a range of these:

- Distinguishing the comparable/distinct responses which may well denote either general concurrence or particular views among the respondents;
- Hunting for significant dissimilarities in answers among the participants of different backgrounds and/ or positions so as to spot any origin-/position-based differences in views or convictions;
- Navigating into the perceived effects of multiple language profiles in the workplaces;
- Reflecting about the daily workplace language practices in the presence of various backgrounds;

- Demonstrating the impact, if any, of contact with the different cultures, especially the English culture, on the individual's labor and management practices;
- Shedding light on the substance of intercultural contact in shaping individuals' attitudes towards learning some language and knowing about its culture.

The coding of the interviews involved thematic categorization of the responses. The emergent themes which will be treated in the interview results analysis section below include: (dis)advantages of linguistic diversity, multinational workplace interactions and language practices, multilingual hiring and training, language skills and career development, and others.

An important remark is that the responses might have been influenced in some way because the interviews were not held face-to-face, especially because interviews are normally usually supported by concurrent field notes as crucial backup in deriving certain conclusions while observing interviewees and their spontaneous body language signals, as well as nonverbal communication cues, which was not the case here. Also, although the author did his best to remain detached from any bias or personal involvement that could distort the interpretation of the results, some subjectivity might run through –part of the shortcomings underlying qualitative research anyway. Further, what will follow in the analysis and interpretation of the results represents the sample's subjective and self-reported data on the linguistic practices within the target settings. That is, the data presentation, analyses, and discussions allowed for in this piece of research reflect the different attitudes, perceptions, and opinions of the individual subjects, rather than general facts about the multinational companies concerned. It is unfortunate that physical field work observations and recordings of actual situations and authentic encounters and meetings were not possible, as they would have allowed for a more objective description

and a more sophisticated account of the actual language use in the multinational workplaces.

While not being physically present in the milieu of work may somewhat affect the significance of the study, this is made up for by dealing with individuals from various settings instead of only one or two. One thing the studied firms have in common is that they all are large multinational companies; different are their respective headquarter countries. That the participant employees belong to diverse workplaces increases the exhaustiveness of the results and the chances of their generalizability in the context of Algeria. That said, the author errs on the side of caution not to claim any ascertained generalizations of the derived conclusions regarding the actual linguistic practices in multinational workplaces and large corporations, whether those operating in Algeria or elsewhere abroad.

6.5. Why Multiple Languages in Multinationals?

The multinationals concerned are plurilingual settings with six tongues constituting the L1 of the participants: Arabic, Chaoui, French, Chinese, Malay, and Hindi. The sample reports one non-L1 language used for work purposes: English. The interviewed Chinese informant employees declared that their company conducts business in Arabic, Chinese, and English; the non-Chinese employees said that their firms use Arabic, English, and occasionally French for the conduct of business. It is significant to observe that there is a fluctuation in the function of languages and their frequency of use in the different site workplaces. Also interesting to note is that English is not the only working language, and that the national language (Arabic) of the host country of these multinationals (i.e. Algeria) is recognized as a working language.

It is particularly important to disclose at the outset, based on the interview data, the presence of other tongues besides the main working languages in small talks and socialization, as part of day-to-day workplace interaction. The interviewees relate language choice (and therefore language use) to inter-/intra-team interaction rather than to macro top-down company policies. This entails that there is no strict top-level language policy and employees are left free at the workplace to serve themselves with the language(s) they see would fit best the interactional context. It is understood from the discourses of the informants, who seem to highly value this flexibility, that the implementation of the macro-level language policy is informed by (rather than informing) the actors' language practice, and there is no apparent management of workplace language diversity in the contexts of the study.

The first question addressed to the interviewees is a request to expound on the linguistic situation in their corporation and which languages are often used for communication and work conduct. The interviewees expressed different views depending on their company of work and with whom a conversation is held. The answers indicate that the languages most often used in the workplace are Arabic, English, Chinese, and sometimes French. Noteworthy is that Chaoui is the language of basic everyday communication among specific groups of Berber ethnic workers who share this language as a mother tongue; and they use it exclusively when talking to one another, both as a strategy to reflect attachment to their identity and as the language spontaneously used by default when they talk to each other. On a side note, a respondent indicated that he sometimes prefers to use this language with his townsmen colleague friends to avoid being understood when he wants to enquire or ask about something related to work and which he lacks knowledge or skill of how to do:

/ani hela lħa□et gi lxeðmat uressinɣe□ mamek atxeðma tʕajðiɣas i mis netmureɵ jassefhamija ðis set□awiɵ niɣ itʕawanija nfarrat ið nbaʕdˤana bla□I mah aɣenfahmen leʒmaʕeɵ ðin matta nqar ni ɣ matta nħaki; ʕla xater laxber jagur ameljar ʒar ixadamen mafaqinak belli uhasinda□ lħa□et kan ma hraweħ ɣer □af u □af malla jaħkem fellak qli nelɣaltaɵ ittag issek errapor u jassalajiɵ ɣer e□arikɵ ɣer umasaul amoqran/ (Said one of the Chaoui Algerian workers)

(*"When there is a work task I do not know how to do, I call upon my fellow townsman who will explain it to me in Chaoui and help me do it without others understanding what we say, because otherwise the word spreads like wildfire among fellow workers on the grapevine if they learn that you do not know something, until it reaches your boss, and if the boss catches you making multiple mistakes he will report you to the higher authorities in the company."*)

Arabic is made reference to recurrently on almost every occasion in interviews. Arabic users take it as language of communication by default as the majority of employees are from Algeria. Nonetheless, some workers admitted that they sometimes use French, especially when referring to certain workplace equipment and tools since they came to know those labels in French when they first joined multinational companies of a French origin in the early years of their profession, a habit that follows them from one company to another throughout their career.

It is clearly expressed that there are no restrictions or regulations whatsoever regarding which language should be used in the workplace, except –to some degree– in the strictly formal foreman-worker interactions and at the administrative level; the most important thing during the conduct of work is delivery of instructions, said one Algerian informant:

/lfajda fi lmaʕluma ki tosl mahma kanet eluɣa, *ħ*atta esˁsˁom elbukm baʕd/

(*"What matters is that we get the information across, not which language we use; it could even be sign language for all we care […]."*)

Although English is seen as the language most used between any two interlocutors who do not share a common first language for communication, some workers lack the Anglophone competency and this is what gives prestige to middle managers who are fluent in workplace languages, for they act as mediators. Individuals in command of various languages thus enjoy more opportunities for promotions and salary increase. Still, some informants support the view that English should be learned and used by everyone since it is the international language of communication; we quote here one Algerian informant with a revered graduate degree in foreign languages:

" […] والأفضل أن يعتمد في التواصل بين العمال باللغة الإنجليزية."

*/wa elafdal an joʕtamada fi ettawasˁol bajna elʕummal billu*ɣa elindʒlizija/

("[…] And it is better to adopt English in communication between employees.")

" […] ويجب ايضا ان يكون هناك تعليم اللغة الانجليزية لكافة العمال."

*/wa ja*ʒibu ajdˁan an jakun hunak taʕlim *ellu*ɣa elindʒlizija likaffat elʕummal/

("[…] And English should also be taught to all employees.")

"أَسْتَذْكِر المَثَل القائل مَنْ طَلَبَ العُلا سَهَر اللَّيالِي […] بِمَعْنَى أَنَّهُ إذا رَفَعْنا مُسْتَوَى طُمُوحاتِنا في تَقَلُّدِ مَناصِب قِيَادِيَّة في أيّ شَرِكَة كانَتْ خُصُوصًا في مَجال النِّفْط […] عَلَيْنا أوَّل شَيْء بِالتَّمَكُّن التَّام في اللُّغات و خاصَّة الإنْجلِيزيَّة وهذا لا يَأْتِي إلَّا بِالدِّراسَة الجَادَّة لِلُّغَة و المُمارَسَة مَعَ أهْل اللُّغَة أو المُتَمَكِّنِين فِيها."

/estaðkir elmaɵel elqaʔil 'men tˁalaba elʕula sahira ellajali' […] bimaʕna ennahu iða rafaʕna mustawa tˁomoħatina fi taqallud manassib qijadija fi aj arika kanet xosˁosˁan fi

madʒal enniftˤ *[…]* ʕalajna awal □aj bittamakkun ettam fi elluɣat wa xasˤatan elindʒlizija wa haða la jaʔti illa biddirasa eldʒadda lilluɣa wa elmumarasa maʕa ahl elluɣa aw elmutamakkinin fiha/

("As the proverb has it 'no sweet without sweat' […] so in seeking ambitious leadership positions in whichever company, especially in the hydrocarbon domain […] proficient command of languages, especially English, ranks first and foremost; and this cannot be achieved without studying the language with devotion and practice with native speakers or those with competent mastery of it.")

However, many others believe that the role of other languages is essential, and that no one language alone should be favored over another. After all, multinationals are multicultural and have domestic as well as foreign dealings, and that brings, by force of circumstances, a mixture of linguistic codes into play. While English may presently be the ideal candidate for global-oriented communication (say, with group companies), it may not serve optimally for the external communication with the local stakeholders (like suppliers, social partners, other organizational bodies, and many others) in the immediate outside setting (i.e. in the Algerian national context). If the linguistically diverse atmosphere is what reigns domestically because of the variety of backgrounds on site, external transnational inclusive contacts also suggest a set of languages for a company to go effectively global.

A widely-held view among our resource persons is one that opposes the policy of standardizing corporate language by giving official status to some language as lingua franca at the cost of the other tongues. Generally English, a lingua franca may be good and serviceable only when all actors in the organization have a good mastery level of it; otherwise, opting for a single official language might be counterproductive. Enforcing

English as the official corporate language when the subjects are not very fluent or lack skills in it is bound to lead to misunderstandings and create more problems than it would actually solve. English, with the increasing Chinese market leadership, is no longer hegemonic in the multinational workplace and international marketplace, or so at least the coding of the interviews attests.

In this line, the Chinese informants (with passable English proficiency) believe that English should not be used with such excessiveness. They believe that Chinese employees (of Chinese multinationals) need to train themselves in Arabic to be able to communicate more effectively with the nationals. The Chinese informants also expressed the opinion that Algerian employees should be proud of their language, and should forget about French, which they view as an outdated language. Chinese employees are of the belief that it is high time Algerian employees started investing their time more in learning some Chinese, since Chinese companies are taking over the Algerian hydrocarbon sector as western multinationals retreat. Chinese employees in general, we are taught by the Chinese company informants, tend to speak their language in virtually every occasion. This seems to have made an impression on the non-Chinese workers who argue that Chinese is becoming a necessity if one wants to join a Chinese multinational. It is also set forth by some respondents that the Chinese show efforts in an endeavor to learn some Arabic (reflected in occasional use of some functional Arabic phrases); and this makes them more likeable and professionally more influential compared to their 'arrogant' western counterparts who were described as doggedly inclined to use their languages (mainly English) and show no effort in learning Arabic.

Language multiplicity is present in meetings of different levels as well; although English preponderates, other languages also secure their place. It is admitted by the informants that in the Chinese companies, three languages are usually used: Chinese,

Arabic, and English; in the Algerian firm, the vehement use of Arabic is uncontested while some use of English and French is reported as well. In other corporations, it is mostly English that is used along with Arabic. By the language of the meetings we mean the tongue used for the spoken and written modes. As the case maybe, a briefing may (or may not) take place at any time during the twelve working hours of a crew, but the pre-work and post-work meetings which are not situation-based should be attended by all employees in any case. In the pre-work meetings instructions are transmitted and the work schedule is traced, and in the post-work meetings the work progress is evaluated, initially discussed orally and then expressed as written summary notes in a form of a memorandum to hand over to the substituting shift. It is mostly exclusively Arabic that is used in the Algerian company with occasional codeswitching to French and incidental use of English. Arabic, English, and Chinese predominate in the meetings of Chinese multinationals, while Arabic and English, and sometimes French, take over in the meetings in other corporations. Chaoui is used between its native speakers only; generally, for any sort of conversation but especially for non-work-related interpersonal discourse, as well as for the work tasks that happen to be done with other Chaoui speakers occasionally. Compared to the rest of languages, French remains a competence with a passive record and with a far less attendance in everyday workplace life.

"*When you know the Arabic language it is important and the English language important also to know it […] very important to speak the English you can forget about the language of France if you do not know because it is ok no problem to you to do not know it because the language of France is not the important language for you if you want to say what you want to say to them [meaning, Algerian co-workers] you can say to them in the Arabic and the English language because it is important this languages."(*Said the first Chinese informant).

"English is gooda [meaning, good] but our language is more gooda very very gooda and we like our language because is better for to know to speak it because it [Chinese] is in everything now and now should learn it [Chinese] better not English better. Arabic and China [meaning, Chinese] is important now in Algeria because English not all speak by Algeria and not speak by we [The Chinese] so China [meaning, Chinese] and Arabic better. China like Algeria because relations more good with China and Algeria and now Algeria have many China companies in Algeria." (Said the second Chinese informant).

Although workers of certain jobs do not necessarily require multilingual abilities (e.g. gatekeeper; cooks; truck, forklift and backhoe drivers, etc.), acquiring such a skill is appealing given the many opportunities it offers (e.g. opportunities to learn new things and become more aware of what is going on, to socialize and network, to aspire to better occupations, etc.). Therefore, as we understand it, it is necessary that everyone in the managerial and senior positions speak the different work languages including English, but this is rather not so much of a requirement for the low-level staff elements. Despite some of the slightly varying attitudes regarding the potential of workplace language diversity, the topic is viewed with optimism by all accounts among the interviewees.

It occurs that there are work-related training programs to the benefit of employees, but no language training is provided by the companies. Meanwhile, the respondents seem exited and prove willing to learn the working languages, with a bit of an extra dose of enthusiasm for English:

"*[...]* تَوْظِيفْ أَسَاتِذَة اللُّغَات الأَجْنَبِيَّة لِتَقْدِيم دُرُوس خَاصَّة بِالْعُمَّال.**"** (Said one Algerian worker respondent)

/ […] tawðˤif asatiðat elluɣat elaʒnabija litaqdim doros xasˤsˤa bilʕummal/

"[…]Hiring of foreign languages teachers to give special languages courses to employees.")

"Standardize the English language […] in addition to allocating training courses in various languages." (Said the Indian interviewee).

*"[…] faut l*iser pour amélioer son bagage linguistique.*")* (Said the French foreman informant)

("[…] one has to read to improve his linguistic competency.")

Proficient enough in French and having Arabic (along with Chaoui for some) as mother tongue(s), many managers and executives (engineers, etc.) are graduates of Algerian universities and higher educational institutions whose main language of instruction in the scientific and technical streams is French. Because of the medium language of instruction, these individuals possess the necessary technical and scientific expertise but lack proficient English skills. Those with more years of work experience within multinational corporations seem to have improved their skills in English to some middling level that would get them more or less safely through the giving and taking of work-related essential instructions in this language. For work conduct, when communicating with a foreigner who struggles with or lacks knowledge of Arabic, these individuals make good use of their modest English knowledge to sustain the conversation. It is of note that it is this very practice of endeavoring to speak to foreigners in English to keep that incentivized and helped the Algerian managers and executives to acquire the English that they currently possess.

Noteworthy are the recurrent code-mixing/-switching scenarios expressed by the informants in cases when a given conversation runs in Arabic, English, or both, but the names of workplace machinery, equipment, or tools are mentioned in French; this being the case as previously mentioned for those employees who formerly initially worked in French language-dominated companies and have thus installed habits of referring to

workplace related items and labels in that language.

/ja weddi rak lazem txaletˤ elhadra bla ma tfiq merra ʕarbija merra ongli w mʕahum kelmat fronsi w hija ma□ja ak taʕref, dˤork elmu□kil mʕaya ana maɵalan ʕlabalek ana xdamt bezzaf mʕahum li fronsi qbal ki kanu kamel □arikat taʕ fransa maħsub hak lwaqt, elmuhim ana madam bdit elxadma ɵem w zid rani tˤawalt mʕahm […] elmuhim elbagaʒ ettaʕi taʕ elxadma kamel ɣir gul kulu blefronsi meħsub walit dˤork ki nhab nsammi haʒa taʕ materjal wala ka□ ʕefsa elmuhim fə elxadma lazem ngulha belfronsi manaqdar□ belʕerbja wala longli allah ɣaleb hakka sabɣet fja / (Said an Algerian foreman)

(“O*h man, you ought to code-mix without you realizing, sometimes Arabic sometimes English with occasional occurrence of French words and so on, you know; now the problem is, for me for example, you know I worked a lot with them the French before, when they were mostly French companies only back then, anyway because I started my career there and I worked for a long time with them […] anyway all of my work-related linguistic competence you can say it is almost all in French, so now whenever I want to name equipment tools or something at work, I cannot help but say it in French, I cannot say it in Arabic or English because it’s installed and engraved in my mind like that [laughter].*”)

Most employees meet and socialize in the cafeteria, and it is there where all the languages of the actors are spoken freely, depending on the L1 of the individual interlocutors involved:

/gi lfwaji lɣa□i kul i□t mamek, kul tˤir jalɣi belɣah, kul i□t ituɵlaj seluɣɵanes w xlas ið imadukalanes, mbasˤsˤaħ majala ði□t sjun ʕla ħsab manet eluɣeɵ agtuɵlei; malla ðabarrani bajen atuɵlajeð iðes angliziɵ w majalla ðə atziri bajen belli atuɵlajeð staʕrabeɵ *[...]* saʕat elan qli le**ʒma**ʕeɵ ðin ibergagen, a□ek hessand, eta□tan eðfuxen stefransawiɵ, besˤaħ a

juma ete□tiɣ a□awiɵ ið imadukalinu sugɣurajanna i□awijan jaħlan/ (Said the Chaoui Algerian employee)

("*In the mess it all depends, every bird has its own version of a song, everyone speaks his language, and that's it, with his friends but if it is someone else that depends on the language he speaks, if he is foreigner you would obviously speak English with him but if he is Algerian you would use Arabic by default […] sometimes there are those poseurs as you know they adore showing off their French, but dear I only prefer using Chaoui with my lovely Chaoui fellow townsmen.*")

It is surprising that the multinationals do not recruit translators to help in the rigs, and instead leave employees to sort out language barriers on their own. The absence of professional translators it is argued, while moderately challenging, also encourages the presence of an assortment of languages in the rigs and facilitates the rig workers' development of foreign language skills.

/ja xuja saʕ fi e□□anti bðatu makan la tarʒmani la walu, kule□ menna fina, bessaħ fi blassa xlaf manakðeb□ ʕla xuja laʕziz, ana fi roħi ma□efte□ w enta zid saqsi, manaʕref/ (Said one Algerian employee)

("*Oh dear, there are absolutely no translators in the workplace itself, it is all sorted out between us, but somewhere else I have no clue dear brother, I haven't seen any myself but you better ask more, I don't know.*")

« *Et bein, là c'est une très bonne question, bien vu. Même moi, je me suis toujours demande en fait pourquoi on a pas recruté justement des traducteurs ; je dis ça je dis rien, il serait mieux je pense si les entreprises recrutent des traducteurs, ça va beaucoup améliorer les conditions de travail, et j'insiste ici sur le milieux du travail où les algériens se sentent en quelque sorte incapables de s'exprimer en français ou en en anglais; ça reste*

toujours difficile de communiquer quand on ne connait pas la langue de l'autre.» (Said the French interviewee)

("*Well, that's a very good question, well said. I've always wondered myself actually why there aren't any translators recruited; I am just saying you know, it would be better I think if the companies recruit translators, that is going to improve the working conditions a lot, and I insist here on the work environment where Algerians are found somehow unable to express themselves in French or in English; it is always difficult to communicate when you do not know the language of the other.*")

However, the structure, formality and type of communication at the worksite is one thing, and in the administration and headquarters it is quite another matter entirely. Communication in the rigs is usually structured less formally compared to the more strictly systematized communication at the managerial level. In the rigs informal and unregulated communication reigns among the actors as a result of the social nature of the context. At the administrative level, communication takes a more formal and systematic shape. Administrative communication is more heeded and treated with more sensitivity, which is the reason why translators are present at this level. The translators, small in number to begin with, are usually outsourced and only rarely hired. Furthermore, the administration regularly processes many types of documents (contracts, reports, etc.) and deals with several forms of contact (emails, phone calls, etc.) and that requires proficient translators since several languages are used in these situations.

It appears that on the face of it, companies do not stipulate minimum requirements for the recruits initially, but tacitly language skills play pivotal in the process of selection among the applicants. It is particular to Chinese that occupations in the rigs are mingled to the extent that it is hard to tell in the workplace the chargehand from the laborer, part of the reason why hiring in the Chinese companies may be comparatively less language-

based; everyone does almost everything and works their fingers to the bone regardless of the work positions. Whether a middle manager or a roustabout that does not really matter much in these contexts. In this way it is propounded that communication deficits are compensated by toiling, allowing little room for verbal communication; and so body language is brought to use, but that is a whole separate topic of its own that space runs short to allow for in the present work. What we can take from this however, while part of the interlocutors' identity and of the messages exchanged in a communicative event is transmitted non-verbally (Bouhadiba, 2012), is that language diversity does not restrict itself to the verbal communication tools only but can also be extended to include non-verbal language (known as body language or kinesics) as an effective choice to backup communication effectiveness. If with some logic that holds legitimate, then we can speak of language diversity in these settings as a constellation made up in the main of: Arabic, English and Chinese as well as Chaoui and kinesics, in a manner of speaking.

6.6. Prospects and Constraints

Defined as a necessity by the interviewees, multilingual skills are also seen to be rewarding for both the multinational and the individual employees. On the collective level, i.e. company level, multilingual skills offer a range of opportunities like cross-cultural mobility, communicating with foreign subsidiaries, boosting productivity, and reaching out to international clientele and global markets. On the private employee level, multiple language skills provide wider chances for, to mention a few: overseas delegations and assignments, promotions and advancement of positions, salary raises, communicating more effectively with (foreign) coworkers (i.e. building more successful relations and disseminating information more efficiently), learning new things, gaining intercultural competence, acquiring new experiences, and obtaining information from various sources.

In the presence of several tongues, employees feel more comfortable since any one employee may be in good command of some of the language(s) but with varying degrees of competence, ranging from proficient to deficient, in (an)other(s); and this fosters an atmosphere of confidence, linguistic security, and equality of chances where nobody feels ashamed of the substandard mastery of some (foreign) language, because they can enjoy effective self-expression in another. The linguistic differences characterizing multinationals cannot be effectively supervised by means of a corporate language policy. It occurs that a single language taken as lingua franca fails to attend to the complications underlying cosmopolitan workplaces; the resolution of language barriers demands more than mere language standardization.

Standardization of corporate language by opting, say, for English lingua franca, results in several harmful consequences where employees lacking enough skills in this language tend to restrain their involvement in the workplace, and this in turn gives rise to misunderstandings and feelings of stress, oppression, and frustration. Corporate language standardization is perceived to create linguistic conflicts and linguistic ghettos which reinforce cultural divides and language barriers, whereas multilingual policies foster a sense of group membership, collaboration, teamwork, and community. Communication in one's mother tongue is effortless, most efficiently precise, and most effectively clear. Best is expressing oneself in one's native language; and better still is having a range of languages at one's disposal to code-switch when skill fails to express ideas in any single language. Being limited to a single linguistic choice (namely English lingua franca) inhibits the effective communication of thoughts between non-native speakers.

"*English for me as an expat would be just perfect if imposed by the company but, well,*

things ain't like that […] I think also this will make, I mean, this can cause harm to some others who'd feel disadvantaged emm when they speak to someone fluent in English. It's common to mix languages to deliver the message and emm also and also to like to emm to compensate for the lack of skill in a given language; this is very common." (Said the Malaysian respondent)

When asked about their attitudes towards adopting a corporate language, our informant employees felt that use of just a single language would generate undesirable consequences otherwise avoidable by means of exploiting more languages than one; an imposed common language is thought to potentially unfairly exclude and penalize incompetent speakers of that language, let alone those with zero proficiency in it. Although the attitudes are less tense in the case of English, there remains an apparent rejection of opting for a lingua franca whatsoever while everyone can benefit from language plurality. This is at the internal level. Externally, all other things being equal, regulation of the corporate language use can hamper the international performance of the company in that not all expected correspondents know that language (be it English even), and even if the parties know that language well enough to hold an acceptable communication, they would still naturally appreciate it more if addressed in their native language. The bottom line is that multilingual competence proves itself the best bet to stabilize workplace performance, company productivity, and business success: it is perceived as a true competitive advantage.

Some informants addressed potential problems relating to language-use regulation in that a strict corporate language policy can limit the productivity and potential of technically-competent employees who lack competence in the established company lingua franca. Speaking of promotions or earnings, for instance, the kind of employees who may be fluent in other languages, but not the official tongue of the company, might ultimately

be consumed by frustration, disappointment, and dissatisfaction, which could negatively affect their performance. Also, penalties can be really harsh for those with a shortage of language skills in spite of their practical work knowledge, devotion, and hard work. The thing is that the emerging young workforce may have good language skills but lack enough experience, and the older generation could display valuable know-how but lack enough languages competence.

/lala huwa ma□i kifkif ki tħawes tafhem mliħ jaʕni […]dˤork ħna elʒil esˤɣir haða xir ʕlihum ħna haðuk e□wabin lokbar haðuk, huma fajtinna ɣir blikspirjons bessaħ lilong ʕejanin huma jaʕni bezzaf ʕejanin jaʕni, huma jaʕni xanethum lalong ʕla kuli ħal jaʕni bessaħ iʕawdˤu □wi blikspirjons taʕhum xadmu bezzaf yaʕni fə domaen huma, hakak u talgahum mekwansjin majtalʕo□ lihlih fə lgrad pwisk majxalsˤoha□ swa swa fə lilong ak taʕref lazem taʕref txalasˤ rasek fə lilong lazem/ (Said an Algerian middle manager)

("*No no it ain't the same if one wants to get to the core of it actually […] see, we the young generation are better than them those old fellows, they have more experience than us but they have weak language skills actually, they are very weak actually; well, it is language proficiency that betrayed them actually but they somehow make up for that with their experience, they worked quite much in the field actually, but even so you still find them stuck and take longer time to be promoted because they are not good exploiters of languages, you know you have to be good in languages, it's obligatory*.")

Linguistic diversity can also cause problems with and create barriers to intra- and inter-unit communication. Lack of skill in the working language(s) of the company leads to poor communication and excludes employees from communicating with headquarters. Ill management of linguistic plurality in multinationals may also create an imbalance in power and impact knowledge-sharing between affiliates. Overall, the qualitative data show

that multilingualism is perceived as an asset, opportunity, and source of power and influence.

Apparently actively encouraged and flexibly adopted by the multinationals, language diversity is reported to serve company interests and increase productivity. The companies do not interfere much in regulating workplace language use practices, leaving the workers at liberty to act on their own choices, to solve the language divides, and to manage language by themselves.

An ambiguous language policy of this kind is not entirely arbitrary or anarchic, nor is it decidedly regulated by the corporations. Instead, the freedom of language choice and use develops organically in the workplace, and is allowed by the corporations so long as it gets the job done efficiently. Concerned with 'what works' instead of with 'what should work,' these companies seem to have streamlined their operations by doing away with whole layers of management, and their managers appear to focus their attention on the desired outcome (effective productivity) instead of the communication tool(s) used to achieve this aim. The language policies in these firms are allowed to develop organically in a manner that appears to please the majority of the personnel; such flexibility targeting maximum effectiveness is particularly appreciated by the workplace actors. For that we call on, again, the previously above quoted Algerian employee:

/lfajda fi lmaʕluma ki tosl mahma kanet eluɣa, *ħ*atta esˁsˁom elbukm baʕd/

(*"What matters is that we get the information across, not which language we use; it could even be sign language for all we care […]."*)

Of course, the situation may expectedly remain sub-optimal since unchecked language diversity may lead to a mismatch between bottom-up language practices and top-

down language policies. The uncontrolled workplace language practices are also susceptible to creating ghettos and language boundaries between language groups. To take this further, it is interestingly reported in the contexts of our study that such linguistic clustering tendencies are natural and usually do not indicate segregation or marginalization, although the latter can sometimes be the case depending on (the characters of) the individuals involved. It should be noted that such formation of language-based groups, although generally associated to the symbolic power of language for constructing and defining one's own identity through affiliation with some group, is sometimes an outcome of the deficiency of linguistic skills and/or lack of confidence to socialize and engage in foreign language workplace discourses. Considering that workplaces have built-in power balance/imbalances, linguistic competences which are directly linked to language practices could become part rather than the cause of inter-personal/-group/-team power negotiation.

Deficient language skills ultimately breed interpersonal barriers and inter-group boundaries, leading to superficial workplace communication, which in turn is held responsible for poor performance on-site. This shows how intercultural and plurilingual competences become a prime resource for integration and assimilation; especially with regard to the local/national language(s) and culture(s).

6.7. Cultural Weight and Intercultural Influences

The informants highlight the role of cultural mindset in communication. Cultural differences, it is argued, affect the degree of success of communication. Linguistic skills alone may not suffice without cultural awareness, calling therefore for cultural communication competency. One informant (an Algerian manager) proffered an anecdote: Once, in a conversation with an Indian coworker that was coming to an end, he thought to

wish his peer luck before splitting: “break a leg man”. “break a leg man” was the phrase he used to wish luck to his Indian fellow; but unaware of what it meant, the latter mistook the expression for an offense!

Both Algeria and China are considered highly collectivist cultures, where business conduct is based on building relationships and maintaining respectful communication. Communication in these high context cultures tends to be indirect and packaged, and interactants need to read between the lines. The real message is implied instead of directly expressed, and needs to be interpreted in the context, which if neglected would increase the chances of misunderstandings, confusion, and even conflict. A Chinese employee talking to his Algerian fellow in English, for example, with all the cultural weight he would put into his sentences, could make the message really difficult to understand, those subtleties of meaning being lost in translation. Because the two tongues that are used in multinationals of a Chinese origin besides English (Arabic and Chinese) represent the native languages for the two groups of employees there, the formation of workplace enclaves is based on the first language of the speakers. The quantitative data demonstrate that employees normally tend to use their mother tongues, except in interactions with speakers of other languages.

The qualitative data from the interview indicate that adopting a lingua franca as the official language of the multinational, coupled with the use of local or native languages at the workplace, can give rise to issues with group integration/segregation that can potentially impact participation in the company decision-making processes. Access to (or exclusion from) positions of power and influence as well as centers of decision-making appears to be grounded in proficiency level in the working language(s). The efficient use of a language professionally transcends a mere general knowledge of that language; it requires additional functional knowledge and

communicative competence. From a socio-professional point of view, employees with socio-pragmatic language skills succeed excellently in work-associated engagements. From an economic perspective, proficient mastery of multiple languages yields higher economic returns as opposed to the comparatively meager benefits of basic skills in those languages.

6.8. Linguistic Decisions, Choices, and Language Practices

The roles and ranking of languages in the contexts of our study depend on their respective users as well as the purposes of their use. The construction of some language as a bridge in workplace settings presumes that employees can successfully and effectively intercommunicate in that language. When employees cannot do so, a monolingual policy is liable to hit problems. The qualitative data from the interview confirm the quantitative evaluations previously reported in the questionnaire survey results, and provide more insightful readings into the exploitation of multiple languages and the different perceptions and realities of language choice and linguistic practices.

While the multinationals in question do not have any explicit written language policy, as our informants confirmed, the employees are thus required to treat emergent language issues in the workplace by developing some pragmatic strategies of their own. A typical strategy, for instance, is using the proficient speaker(s) of the language(s) as translators to resolve potential language barriers for the others. While workplace internal tasks are tackled by employees, it is common practice among companies to outsource complex and sensitive linguistic tasks (like the translation of the company's own documents such as: contracts and business offers, marketing texts such as briefings and presentations, and advertising texts) to commercial translation services.

The degree of formality or informality of a communicative event within the

corporations determines the extent to which language use is monitored and reflected in the daily practices of employees and workplace circumstances. A person with managerial responsibilities is normally required to use language correctly and accurately, considering the requirements of his job title, basically entailing the use of strictly official language. In such exchanges of a high order, efficient use of language is not something to take lightly. The Indian informant made a very good point of this by saying:

"*Oh yeah tell me about it, yeah I know what you talking, well emm you'd bet, sure yeah yeah I am telling ya […] business talk ain't a normal chat with a friend you know[…] where you give yourselves a laugh you know […] work talk is strict and straight you know emm you really outta watch what you say out there emm you know.*"

The same informant expressed that the degree of formality of a correspondence depends on the nature of the message: addressed by who, to whom, and for what end; the language used and the type of communication in question (written or oral) also determine the linguistic efficiency requirement. Speaking to an administrator or to a manager in headquarters sets a formal communication mood, but talking to a workman at the site requires use of a more simple and direct language, even an informal way of address, as it were. Informality of correspondences also holds more often than not when communication runs horizontally: foreman-to-foreman, and even more so in the case of worker-to-worker.

Language choice in the circumstances is based on four variables: the mode of communication (spoken/written), the individuals involved, the level of formality, and the kind of interaction (vocational/social). English seems to be used more in important and formal instances, like high order meetings and briefings; and the less formal the situation turns, the more likely the use of English diminishes in favor of the rise of the other languages.

The interview data show that the language most used in the writing mode (documents, emails, reports, contracts, minutes and memos, etc.) which is principally work-related is English, apart from the few instances where Arabic, French or Chinese would be used. Why English is the language used for writing most of the time is because written communication is usually directed to administrators at the different levels, where knowledge of other languages may be missing. This is especially so at a more international level, like, for instance, to sustain constant contact with headquarters and to keep them abreast of the work status and workplace proceedings (progress, difficulties, etc.). Another reason why English gains prevalence in writing, based on the data obtained, resides with the fact that those written genres (emails, documents, etc.) could further be shared later with several parties by the recipients themselves and having them sent in some other language –say Arabic, French, or Chinese– would mean that they should first be translated and then forwarded to the desired parties, a time-consuming double-work which employees seek to eschew simply by going for the more commonly shared language in the first place: English. It is also reported that levels of proficiency in English vary; so the language of writing is meant to be simple and direct in structure and terms so as to be readily and clearly understood by anyone with passing English language skills, in order to avoid any misunderstandings and confusion.

In the oral mode, however, the other languages are used to a higher degree, depending on the nature of the encounter (work-related or casual) and who is involved. Speaking of interactions, they are three-fold ranging from strictly formal through less formal to informal. At the more strictly formal level we find conferences, briefings and company bigger meetings; at the less formal level we have situational, face-to-face and telephone conversations; at the informal level are small talks and discussions in the cafeteria, lunchroom or even during the working hours. The interactions taking place at

the first layer are typically work-led, those at the second layer are work-focused but reckon with social performances, and those at the third level are on the whole social, but with reference to work issues few and far between. In the Chinese concern for example, if the group holding the conversation is Algerian, the group members will speak Arabic (or, even though to a lesser degree, Chaoui if the speakers involved share this language as their mother tongue); if all members are Chinese, the group speaks Chinese; otherwise, i.e. in case of mixed groups, English interferes more, but with some occasional functional Arabic expressions used by the Chinese every now and then. That is more the case of less formal interactions.

*"It is depend to the one I talk to him, if I talk to one from China I talk our language [meaning Chinese] to him and if I talk to another one who is not from China I talk English to him; I know few Arabic but it is easy to say in English better for me because I understand few Arabic but not talk Arabic good. When they [the interlocutors] are from Algeria they talk Arabic together in their conversation although they can know some English but they talk Arabic together and when they talk to me they talk English because they not know my language [meaning Chinese]." (*Said the first Chinese informant)

Another determinant of which language to use is the nature of the interaction in question, whether a professional discourse or a social talk. All three languages are used for either kind of interaction or the other; however, English tends to be more of a business-associated language while Arabic and Chinese are more used for social contacts but also remain pertinent to occupational interaction in some way. The Chinese seem more inclined towards learning and using more Arabic on a daily basis, but Arabic speakers find it challenging to get to know even some basics of Chinese. The language of socialization, i.e. of small talks and conversations, is determined by the interactants themselves. It is argued that it is usually the case that the language in non-work-linked talks is either

Arabic or Chinese depending on which group is considered, but when English is used in such those social scenarios, that means that the speakers are more work-oriented. However, all of the afore-mentioned is typical to the Chinese corporations but is not the cognate case when it comes to the Algerian company where Arabic reigns, and to the French company where English runs more frequently irrespective of the communication type and level.

In social settings, when not everyone involved understands the language of the majority, or in case a topic related to work is in the meantime discussed, there is a general tendency among employees towards shifting the language of interaction to English. But that is sometimes obstructed by those interlocutors who cannot hold speaking English throughout the social interaction due to their insufficient English language skills. Because not everyone in a social interaction is fluent enough in English, conversationalists oftentimes start off speaking in English but then end up shifting to their native languages by default especially when the speech is not directly addressed to someone who does not share the same language, creating therefore small speech communities (linguistic cliques) instead.

The use of several languages is largely viewed positively by the employees, and language diversity is considered as a valued asset in the multinationals as it ensures functioning communication; being able to interact in the local and workplace languages in general is rewarding and is often perceived as necessary for both internal and external communication, with different degrees of intensity though. Proficiency in English and other languages seems to be increasingly more required the higher up is the position in the hierarchy, or the more communicative and engaging the job is; blue-color workers, however, do not necessitate a very high multilingual competence level.

6.9. Linguistic-Professional Repertoire and Competency

When they were asked about their language skills, the informants generally explained that they developed their abilities in the languages they speak by means of experience and/or education. Those who described their language skills as emergent from experience seem to have a long career within multinational companies, both nationally and internationally, and have thus been in contact with broad multinational staffs. Those of them with extra more linguistic abilities are especially found to have worked for quite a good span abroad. This expatriation allowed them, first, to become aware of how important language skills are to hold contact with the linguistically diverse crew members, and, second, to develop and practice the required language abilities in order to catch up to workplace daily communication challenges.

The need to learn and speak foreign languages is perceived indispensable in the modern-day increasingly fast-paced internationalizing business. A workplace with an ethnically heterogeneous population can be doomed in the absence of effective means of communication. Be that as it may, a multicultural work team of employees with adequate language skills is usually found coherent and easy to build relations and conduct work more efficiently. Combined with work experience, language skills obviate communication difficulties, improve workforce performance and boost company productivity remarkably.

Obviously with perfect proficiency in their respective L1s, the participants report varied competency levels in the other languages used for work interaction purposes, ranging from relatively high (or good enough) through conversational (less good) to limited (not good enough) working proficiency. It is reported that some employees with

deficient English language skills are exposed to occasional (perchance inadvertent) marginalization in meetings and certain workplace encounters given that they cannot carry themselves to the rate of talks between professionals. This can be based on to declare that language choice for work purposes is largely determined in accordance with the perceptions and attitudes of employees towards their and others' perceived degree of mastery of language.

With their varying proficiency levels, the informant employees altogether set out knowledge of the following language: Arabic, Chaoui, English, Chinese, some French, Spanish, German, Malay, and Hindi. The interviewees hold different views as regards the degree of language competence needed for the different work positions, but it is generally argued that white-collar employees are required to have good command of the working languages. Apart from the Chinese companies, high English language proficiency seems to be valued much. C-level corporate jobs seem to be reserved for the highly work qualified and linguistically proficient individuals, less work experienced employees with multilingual competency occupy B-level positions, and experts lacking language skills belong to level-D:

/li jaʕref jahder lilong mliħ idir laffar, iʕi□ benks […] aaa wiii u longli hija esˁsˁah ana ngullek bessah bajna lazem taʕref □wi loxrin […] ħatta w jodxul ʒdid mʕa ikun jaʕrfelha □wi berk elxadma kifa□ [hhh] w ikun xa□xa□ fi raso berk fə lilong jatˁlaʕ jatˁlaʕ fə legrad mafiha□ itˁalʕoh […] jaħtaʒuhum bezzaf haðu li imitriziw lilong matˁlobin matˁlobin/ (Said an Algerian worker participant)

"*He who speaks languages well will pull off and make it, he'd make the most of it […] oh yeah and English is fundamental I am telling you, but obviously knowledge of* فاتothers *[referring to other languages] is mandatory too […] even if he is new [referring to a*

newly recruited individual] if he has only some workplace tasks know-how [laughter] and with his proficient language skills he will be promoted, he will, they will promote him for sure…they are most needed those who master languages, they are needed indeed."

Considering our interviewed multilingual employees' language learning experiences, it is unanimously agreed that formal foreign language learning at school merely attends to basic knowledge of the language and does not equip learners with the adequate communication abilities while there is barely any exposition to the foreign language(s) being learned outside school. With an academic view on languages, many employees set forth that language is by and large taught merely as a subject, with hardly any opportunities to practice it for communication. Apart from dedicated individuals specializing in language, formal language education is perceived as insufficient a supplier of the needed language skills. And so they affirm that even employers are of the entrenched belief that formal school foreign language learning outcome levels of especially experts (e.g. technicians and engineers) are inadequate for holding business-related effective communication in multinational settings.

Consequently, such a recognized shortfall in language skills issuing from malfunctioning formal schooling is made up for, we are informed by our participants, by after-school efforts of improving language skills required for the job, and that includes joining private language courses, internet, experience with different multinationals or overseas and language trainings of different sorts. A number of informants highlighted that some multinationals do actually provide (inter-company) exchange programs and trips abroad for their staff, and these are basically meant for employees to exchange job related knowledge and acquire new specialized work-associated skills, consequentially improving and practicing foreign language skills into the bargain, on a secondary level.

The intercultural competence of our informants from the Chinese companies seem to be low and employees lack sensitivity to cultural differences; all they are good at, or rather all they care about, is get the work done with the least communication possible. And this is why body language occupies a good share of the deal in some occasions, depending on the correspondents. All site employees recognize the importance and soundness of competence in languages, and those at the higher positions have a higher degree of awareness of the requirement for language skills given their involvement in the foreign contacts of the multinational. Holders of hierarchically higher work posts demonstrate especially keen disposition towards languages learning. Learning a (new/foreign) language seems to be incentivized by the prospective opportunities for career advancement and other economic returns like salary increase or fringe benefits.

The interviewees all hold positive attitudes towards language diversity and appreciate the returns of multilingual competence, being the norm rather than the exception in multinational workplace contexts, and command of various languages is regarded as necessary and a means towards climbing the ladder of positions and even moving to work abroad. Some of the reasons provided for this positivism include the nature of the modern-day workforce being international, and that the companies are supposed to foster cultural and linguistic diversity brought about by the motley crew of backgrounds to succeed in in their activities.

Multinationals define their own competence needs for new job offers. These competences include language skills as well as professional knowledge. The extent of the use of each tongue varies considerably between companies. While certain languages are in more demand than others, English remains broadly at the lead a basic requirement. Arabic is taken for granted an indispensable language and is accordingly not even referred to as a requirement. An interesting reality to report along these lines is that in Chinese

companies, Chinese worths a great deal for its speakers and in the work milieu altogether, to the extent that English is sometimes put to shame in comparison in the context. The local language Chaoui is not a job requirement in companies, and it is only regarded as an extra value, besides any other language skills. It is argued that use of both Arabic and Berber (particularly Chaoui variety) (the latter to far lesser degree though), is common in the surveyed settings. English is also found to be in use but generally for work-driven talks while groups of employees generally almost automatically shift back to their community language in their respective language community when no external party is involved.

In formal spheres such as meetings, Arabic reigns in the Algerian multinational, English clearly dominates in most cases in foreign companies other than those headquartered in China, and both Arabic and English along with Chinese are found in function with varying degrees in the Chinese companies, but English here is not of the same status as previously indicated for the foreign non-Chinese companies. In the informal settings, like small talks and chats over lunch or coffee breaks, it is rather common to find all these languages and others.

When asked about the sorts of experiences, skills and competences pertaining to obtaining, maintaining and retaining work positions in multinationals, the informants in general consensus deem that the languages proficiency and communicative competency are indispensable for anyone seeking an occupation with some status, highlighting meanwhile that some employees have the specialist and linguistic skills required to do the job in the most of appropriate manners while others are merely happy to offer their muscles. The higher up one goes in the hierarchy of positions, the less physical exertion, the more responsibility, the significantly more incomes; and vice versa. The participants emphasized that technical expertise, mechanical skills and/or work experience alone do

not stand for a valued capital, to the extent that some would hope, if they are not accompanied with linguistic competences, implying that such individuals with merely vocational skills are soon to be replaced by better able professionals with both linguistic and specialized skills.

6.10. Multiple Language Competences and Job Opportunities

The ever expanding internationalization of businesses sets off stiff competition in the modern day job market. Even as early in the employment process as when submitting a resume, having a set of skills makes quite an impression. Possessing a skill, or a range of distinctive abilities, that allows a job aspirant to stand apart makes for a great benefit. One such outstanding resume plus in the context of multinational business is demonstrating knowledge of more than just a single language. A resume is the first opportunity for a job-applicant to attract interest, so showcasing pertinent skills and abilities is crucial for impressing the employment professional who would read it. Being at grips with more languages makes the Curriculum Vitae stand out and can boost the candidate to the top of the interview list with prospective employers. CVs demonstrating command of a set of languages are more attractive for employers; and on a related note, even in a hiring interview session, language skills are critical elements of acceptability, which when conjoined with the effective technical abilities an individual can bring to the site, they make for a combination of both great interest and worth.

Having or lacking such linguistic competencies, obviously besides work-related skills, is what determines the appropriateness of individuals for important and managerial positions and thereby ultimately the degree of competitiveness of the multinational in the wider global market. It is the ability of effectively managing workplace diversity that makes the difference, says one informant:

"*When everyone can use the languages in a good emm in a useful and organized way uh you know, things will be smooth in work and emm this uh this is useful for everyone there emm for everyone working there because it makes the work more easy and more productive […] and uh this can be well done even when people are different; I mean when people uh like emm from different places and work together; people just have to use their languages to use them with each other and help each other.*" (Said the Malaysian interviewee)

The respondent employees are like-minded in their perception of a good command of English being important for both their work life and their respective companies of work. Even though unanimously perceived pivotal for individuals' career progression and improvement as well as for multinationals' requirements and operations, using English competently does not exclude the reported need and significance of competence in other languages as well. So, anecdotally, the English language alone may fall short of satisfying the desired outcomes of multinational corporations and their diversified workforces, especially in nation contexts where English has a limited presence and where local languages are laid great weight on by their speakers.

Noteworthy, it is recurrently implied by a good number of employees that it is partly because of the lack of knowledge in English among some work-team members that makes the need to other languages on the rise. Therefore, success of multinational workforce and progress of international business go beyond centrality on mere English competency to highlight the important role of proficiency in a set of other languages and the requisite of including them at once. English, other things being equal, is represented as no panacea in cosmopolitan work milieux and cross-border business contexts because not everyone speaks English (very well), or likes to speak English–so to speak, and this leads to the prerequisite of resorting to other languages (viz. working

languages, notably, local/native tongues) to compensate for language barrier.

Manager engineers and technicians with poor language skills are shown in an unfavorable light and seem to be the last resort when the list of better options drains. Their lack soon runs out in the presence of polyglot rival counterparts. Unable to hold an effective communication in the languages of the workplace actors and with the corresponding structures of the multinational at different levels, even they themselves do not feel they belong, and they get the least of attention in the workplace, for that matter. Multilingual executives are highly valued and their set of skills are appreciated both in the workplace site by team members as well as within the multinational overall; they enjoy a wide range of advantages and benefit from considerable rewarding returns. Their multiple linguistic skills sustain greater opportunities and open up wider horizons for them.

In such a state of affairs where proficiency in multiple languages is perceived as a valuable asset in its own right, equality of opportunities shakes. Informants also zeroed in on the fact that global corporations are turning more and more selective concerning the personal features demanded in potential applicants. It is stressed that knowledge of foreign languages, especially English, is becoming an essential criteria upon which the selection of job-applicants is based; because evidently an individual equipped only with the technical and scientific expertise if not qualified in the needed language skills might just be a burden both in the workplace fieldwork and in the company altogether, especially in terms of efficiency and productivity in the latter case.

Although worthwhile, technical skills alone are not all what it takes to obtain the desired posts, climb the hierarchy of positions and access to higher work functions. Even if attributed some such ranks of importance to some degree in extreme situations when a given multinational runs short of multitalented employees, executives lacking multilingual

attributes lose sizeable earning premiums otherwise obtained by fellows with the same traits but known for their linguistic versatility. Such an augmenting demand for employees with versatile interaction skills suggests that multinational stakeholders and international business professionals have started to realize how important language skills are for a business bound to the international market and the global economy, and make more informed decisions of some sort thereof. Therefore, remarkably, it is the language variable that monitors to some striking degree work opportunities, the (mis)match of a candidate's profile to the required set of characteristics set by employers for a job has to its core communication effectiveness considerations.

The discussion so far provided reflects the status and significance of languages in the professional sphere and provides evidence of how crucial a variable language is in the work environment. In its uncountable sense, language is indispensable in the work life of individuals as the main means of communication. Conjugated in the plural while in workplaces of a multinational character, if prudently supervised, it proves economically rewarding and socio-professionally beneficial to the corporation and to its members given its pivotal role in the world economy.

6.11. Conclusion

This chapter allowed for the analysis of the qualitative data collected by means of ethnographic in-depth semi-structured interviews conducted with a sample of nine nationality-mixed male employees from diverse multinational companies operating in the south of Algeria. The results clearly flow into the idea that the linguistic practices among the international workforce in the multinational workplaces are of a diverse nature where several languages instead of just a single one are used concurrently. It is shown that Arabic and English are a requirement in all the settings explored, Chinese is functional

within Chinese companies, Chaoui –even though manifestly present– is not of a significant value apart from its native speakers, and French –although not entirely absent– is an accessory language. We now turn, in the next chapter, to the discussion and comparison of the key results combining the analysis provided in this chapter with that of the previous chapter.

Chapter Seven

Results Discussion and Findings

7.1. Introduction

The present chapter is devoted to discuss the analysis results obtained in the two preceding chapters, basically from the data of questionnaires administered in two companies along with that gained through a semi-structured interview conducted with a sample mainly from three corporations. However, it is also important to remember that discussion of the results also invokes the theoretical models discussed in the conceptual chapters about the economic relevance to language issues at work. Therefore, the progress of the text in question shall proceed from having a look at the empirical findings in respect of their own value in the present work and at the same time shall be appealing to a critical brief background of relevant studies that may concur or be at odds with the findings obtained. In this chapter, the discussion approaches a set of the most pertinent thematic lines giving direction to the research. Most important are language diversity and language practices as a reality in multinational business between domestic obligations and foreign adaptation, the communicative aspects of language use in the workplace at the presence of multiple linguistic repertoires, workplace linguistic diversification as impediment or facility towards homogeneity, the role of language skill in recruitment and employment, multilingualism as both a factor of efficiency at work and an alternative to translators or 'language workers', closing with a bird's-eye view to language practices and policies in companies regarding particularly workforce foreign language training, the corporate language policy and its outcomes within linguistically diverse workplace contexts. Overall, this chapter tries to build a model for language diversity at international companies, by focusing on two aspects: probing on the benefits of linguistic diversity as a resource and the competitive dimension of the different languages in a business context. At the end of the chapter is a synthetic statement of the findings stemming from the merits and demerits of this research, by weighing against critical literature in the contexts akin to the cases of study under examination.

7.2. Multinational Workplaces as Multilingual Communication Spaces

Do you speak English? ***你会****说中文吗？* *هَلْ تَتَحَدَّثُ اللُّغَةَ الْعَرَبِيَّةَ؟*

Parlez-vous français? *¿Hablan usted español?* *Sprechen Sie Deutsch?*

Parli italiano?

If you answered ***yes***, ***是*** ,***نَعَمْ*** **, *oui***, ***sí***, ***sì*** and/or ***ja!***, then congratulations; you are an invaluable multilingual human capital that Algerian-based multinational businesses are willing to invest in.

Language is an indispensable tool of communication among staff members for the accomplishment of business activities. Miscommunications are usually the outcome of either interlocutors' ineffective expression or the talk-receiver miscomprehension; worse still is the use of a language that is incomprehensible to the receiver. The incapacity to achieve certain business matters as a result of failure to comprehend some language active in the workplace might yield significant consequences on teamwork productivity, especially hindering trust and rapport building given that "surface-level language diversity may create perceptions of deep-level diversity" (Tenzer et al. 2014, p. 509), in the sense that multicultural distances would cause disparities unless a shared intercultural platform is being established.

The quality and quantity of the manufactured product as well as the productivity of the workforce appear to have a lot to do with the linguistic activities of the workplace. Yet, the results demonstrate that language diversity is a reality within multinational companies and that the surveyed multinational workforce members associate this diversity with commonsensical practice as they appear to make good exploitation of the set of languages at their disposal in their work environment, be that in business-associated

regards or in social considerations. In fact, this concurs with Feely and Harzing (2002, p. 6) when they claimed that "[t]he level of language diversity will obviously depend on the extent of the company's global network of subsidiaries, customers, suppliers and joint ventures, though even the most international of enterprises will embrace only a minute fraction of the world's 5,000 plus languages." Whether the difficulty of understanding some language within business settings might lead to a feeling of incapability to handle workplace unexpected events is somewhat expressed at a level of frequency.

It is widely common a practice among the employees of the studied corporations, in general, to seek an interpretation/explanation of a talk content when delivered in a language beyond their understanding. They refuse to remain detached from workplace events; their desire defies the circumstantial constraints, them being concerned as part of the whole. This is pretty much in opposition to what Neeley et al. (2012) found, when they concluded that a multilingual workplace is liable to have drastic conflicts among its team members, especially in cases where locals are joined with expatriates, leading to the creation of a tense atmosphere, or worse even, developing a serious isolationism which together with the tense atmosphere will definitely hinder work performance both at an individual and collective levels. While in the present research, it appears slightly different based on general workforce comportment, this study simply reflects how important being aware of and keeping up with the workplace proceedings is for the employees.

This research also further depicts the high degree of tolerance and flexibility among the multinational workspace players towards the scenario of a range of different languages taking effect simultaneously in the work setting. With that said, however, it is remarkable that there is a lack of an apparent and explicit strategy adopted by corporate in regard to language management in such situations in order to ensure a harmonious work environment. For example, Tange (2009)'s study found that what she labels a 'language

worker' for mitigating intragroup communication problems is by far crucial. In her study, after noting the probable communication problems started especially due to language issues, she points out that such language workers are those individuals in the workplace who have been employed primarily based on their past educational background as adequate in some required language for business purposes, and whose main task is to be a working joint among their teams by alleviating group work problems through the functional usage of their foreign language skills (such as in translation, corporate communication, document writing and proofreading). Indeed, such language workers represent "knowledge brokers" (Tange, 2009, p. 132) who would intermediate workplace communicative difficulties among especially the multicultural work communities with diversified mother tongues. Thomas (2008) goes a bit further to the extreme by proposing the hiring of agents for observing linguistic behavior and patterns in the workplace settings, called 'language officers', and accordingly designing a language management policy based on the reported accounts.

It is indeed a certitude, based on the results, that such a tendency towards seeking to gain cognizance of the material dealt with in a speech ran in an intelligible tongue is work-oriented and labor-connected; i.e. if the subject-matter pertains more to (mere/pure) socialization, there would expressly and expectedly be less of, if at all, an inclination towards adopting the strategies under discussion. Recent research suggests that business know-how relies not so much on physical burdens assigned to team members, as was customarily presupposed, as it does on communicative competence. In that regard, Kankaanranta and Salminen (2013) render common knowledge of a shared linguistic system an axiomatic consideration that modern globalized business ought to acknowledge, so that a corporate language, which is often English, is duly well accounted in international business strategy. Again, in the situation under survey, this is fairly treated

marginally, which results in double-effort of message understanding on the part of the working teams who experience language communication issues. Likewise, the commonness of the afore-said attitude is mirrored in the opposite direction; when someone speaks in a language some of the teammates fail to understand, the speaker proceeds in the same language and then leans on provision of an interpretation of the gist of the addressed topic afterwards. This illustrates that employees are at liberty to express themselves in any of the working languages as seen fit free from any company regulations; the linguistic panorama and interaction atmosphere are thus elastic and spontaneous.

It is particularly striking that partaking of individuals in the workplace interactions despite being unequipped with enough skill in the language in which a communicative event is held is in vogue only in the Chinese corporation, compared with the other multinationals. This is by reason of the incomparable site realities of these work settings; while the non-Chinese multinationals clearly define and distinguish the roles and tasks of low-level staff from those of the high-level staff, the rig work life for the Chinese is one of a collective nature where everyone works their finger to the bone involving equally well both white- and blue-collar employees. That is, regardless of the work position, part of the work routine in the eyes of the Chinese is that all the individuals in the rig, from roustabouts through middle managers to the (night) toolpusher, should join hands in the conduct of work as one homogeneous team with no position-based distinctions whatsoever; the only disparity shows in the salary paid depending on the post occupied in the hierarchy. This explains why the Chinese prefer mingling job roles rather than distinguishing between the different work functions.

The employees of a Chinese company encounter difficulties in communicating effectively with each other due to lack of common fluency in a certain tongue; while the

Chinese lack enough knowledge of Arabic and are not adequately equipped with English proficiency, the Algerian workers possess no knowledge of Chinese and may as well demonstrate poor English language skills; and this makes it hard to sustain frequent successful communications. The work positions are clearly distinguishable in non-Chinese firms because most of the workforce members have good enough proficiency in several languages generally speaking, and can thus achieve work tasks more or less efficiently each in their position as a result of the ability to exchange information and instructions successfully.

7.3. Language Diversity in a Spectrum

The results reveal that all four languages: Arabic, English Chinese and French plus one (i.e. Chaoui, which is far less significant), have specific roles, in company meetings of different sorts and sizes, so that even if one language might dominate in some ways, this dominance does not lead to an automated disappearance of the other languages, even though the context renders them occasionally peripheral (Ehrenreich, 2010). This language situation usage counts with distinctly varying degrees and frequencies. While Arabic and English excel as the leading languages of meetings in multinationals, besides Chinese to some degree restrictively in the Chinese company, French appears to run out of much luck in the circumstances, and so is Chaoui as well. This provokes a couple of striking notes:

First off, the apparent high presence of Arabic all throughout is attributable to the fact that the large majority of employees, especially among workers, are nationals, while the number of ex-pats (albeit far from null) does not compare overall. In addition, the predominance of Arabic can well be justified by its national status and official recognition for usage by the Algerian polity, which seems to tacitly inform business decisions in

certain ways. And compared to larger and more restricted meetings, it is in rig meetings and work team briefings (as comparatively small meetings) that laborers have more voice.

Again, the Chinese appear determined to use their mother tongue at all costs; a deliberate strategy, so we set forth, other things being equal, to show their cultural-linguistic attachment and, especially, to instill the propagation of their language instead of resorting to another communication tool (e.g. a lingua franca, typically English) to satisfy work-related interactions, save in extreme circumstances when all other options have been discarded. Added to their relatively poor English language skills, they seem more inclined towards using their own tongue punctuated with body gestures to make themselves understood. In a similar context of study where one multinational has been conducting business in Germany as a foreign environment, it was found that employees who are characterized by their different origins and backgrounds composed a unique multilingual work community where even while running English as the corporate language, other languages were used, in particular that of the parent company's mother tongue (Ehrenreich, 2010). To the best of our reasoning based on the evaluation of the different results in this line, Chinese is used in situations other than company domestic encounters (like, meetings with the employees of another multinational) when both parties involved in the communication are themselves Chinese.

Last, although it is assumed that post-colonial full restoration of national stability shall suffer for a long time that the language of the colonialism will forcefully be present and deeply engrained in all respects, notably in industrial sectors such as did English in South Africa (Casale & Posel, 2011) and India (Azam et al., 2013), the use of French in companies operating in Algeria has become obsolete in the workplace in its nest company, not to mention its irrelevance in the Chinese and other non-France-headquartered multinationals. Of some significance in use only in meetings with company man French

owes this impression to the fact that company men are Algerian delegates of SONATRACH and they all normally are holders of some hydrocarbon-specialism-related university degree; having pursued their higher studies in a field of this sort means that they possess satisfactory skills in French, since the latter is the medium of instruction in such technical domains at tertiary education. Moreover, French can be noticed in Algerian Arabic as speakers have the habit of code-mixing between the languages; this gives rise to a number of French words or expressions in the daily Arabic discourse. It is worthy to sound a note that while French grows relatively more in use (while remaining virtually a minority in any case) as meetings expand in scope, Chinese generally goes in the opposite direction (diminishing the bigger in size meetings become) in the same conditions.

To round this off, both Arabic and English are expressed at a high level of frequency as languages of rig briefings and meetings in the contexts. With the majority of employees being native speakers of Arabic, Arabic predominates the scenes, and English seconds it as the language facilitating intercommunication among Arabophones and Anglophones. Unlike Chinese and French, Arabic and English maintain their position of privilege throughout regardless of how small or big meetings are, and irrespective of the corporation and the parties involved in the event.

While the functioning languages of the display panels and the operating systems relate to the individual companies when it comes to Chinese and French, in global business English is widely present in all settings and Arabic is generally irrelevant. Chinese is found of considerably respectable place in a Chinese company but obviously has no status otherwise. What is more, transpiring of a timid role even within the French company, it does not come to surprise that French is bare of any aspects of significance or utility outside its nest context. Being most commonly used, it does not proceed that English is incidentally opted for as a language of software in the companies; rather, choice

–not to say necessity– of using this language is of purpose since it is the language of mediation and is deemed as a communication facilitator medium. Although less famous in the Chinese multinational, English occurs to be exploited as a short-cut in its excellence in pulling workplace linguistic diversity together when the situation entails cost-effectiveness.

Why Arabic is entirely outed and Chinese and French appertain highly in labelling rig hardware, is simply by reason of the headquartered location of the companies which acts as an underlying force sustaining preservation of attribution of names to drilling machines, equipment and tools in the original language of the respective country of origin. Also noted is the use of English even though neither of the multinational corporations surveyed is of an Anglo-Saxon nationality; this is simply, on the one hand, due to the fact that the Anglophone world can be said to dominate the field of oil drilling, extraction and refinement; and on the other, that English is generally perceived as the middle-ground language when other languages fail the task of intermediating (Kankaanranta et al., 2015; Tange, 2009).

Although some company documents like resumes, reports, and/or contracts can be found to be written in Arabic, Chinese, or French, such instances remain constrained and humbled in the face of English which continues to dominate multinationals in many aspects and dimensions of written documents (Louhiala-Salminen et al., 2005). English seems to predominate but in no way neutralizes other languages outright.

The situation becomes messier in more of a socializing environment where employees unwind and let themselves go for a while to enjoy a laugh, anecdote, argument, or any such like social, non-work-restricted small talk (Pullin, 2010). In the canteen, over lunch or coffee breaks, Arabic is fully exploited in all settings; this is particularly because

the great majority of the workforce members are Algerians. English is as well apparently largely common in interpersonal exchanges in the cafeteria among employees amid multinationals other than the Chinese, for it acts more as a casual business lingua franca in these instances (Kankaanranta et al., 2015); in the Chinese company English is far less likely to be heard frequently. Chinese is significantly used in the lunchroom within Chinese multinationals, obviously restrictively involving Chinese-to-Chinese employees. Again, French is feebly used among individuals in the popote, and is restrictively found only in the French company while entirely off-duty elsewhere.

7.4. Linguistic Realities amid Multinationals: Practices between Domesticity and Foreignness

The frequency of getting some language(s) into play with teammates at the workplace or via online contacts is very much determined by business demands and task achievement exigencies, as it is part of the business 'know-how' game (Kankaanranta & Salminen, 2013). Chaoui put aside while very restricted in use to its native speaker employees as a minority indigenous language (Grin, 2003), Arabic is the only language used in worker-to-worker day-to-day interactions and is, same as English, entirely absent from the communications directed to the base administration, depositing the thrust of 'which language to use by default' to direct test as considering a foreign versus local language conceptualization (Henderson, 2005). While the employees in the rigs keep constant contact with the base administration, the absence of both Arabic and English in the latter case is due to the fact that the base administration of each company preserves the home country language for the different sorts of communication; so a Chinese company sustains use of Chinese, and a French corporation maintains usage of French, and so on. English runs parallel to Arabic, being profusely used in interactions engaging workers and

foremen together, irrespective of directional considerations. That is, employees and foremen commonly address each other by means of these tongues, and foremen among themselves as well make use of these very languages when addressing one another.

Speaking to company man (the representative of SONATRACH) also involves both Arabic and English to a large degree. Chinese is only used by its foremen native speakers when talking to each other and when communication is held with the base administration. It is also worthy to note that these individuals are more often than not observed to be speaking Chinese even with the other employees, but this is usually accompanied with extensive body gestures to help deliver the intended message since the parties to whom the speech is addressed do not understand the language. This prejudice for Chinese reflects a lack of sufficient competency in other languages like Arabic and English on the part of these individuals, and does indeed also evince the aspirations of imposing and expanding the market leadership of the language of the rising world economic giant China.

French is not so common except in site-employees-to-base-administration regular contacts and relatively in interactions involving company man. Its presence in other instances is faint and minimal.

Although either language or the other is occasionally seen scantily used in certain occasions and for specific purposes, there is hardly any instance where only a single one tongue is fully used with a complete absence of the rest. Regardless of the degree of commonality of each language in the different activities and processes, the set of languages holds pertinent in virtually all aspects and dimensions of the multinationals. From this, it follows that language diversity is a reality which should be fostered and nurtured to make the most of it instead of disposing of it in favor of an artificial one-

language-only paradigm. Although a multinational business that operates in multicultural environments encounters Linguistic differences that may be seriously daunting (Dhir & Gòkè-Pariolá, 2002) the international multilingual workplace proves in many ways to be an advantageous resource. Yet on an external communication level, some would strongly oppose this view and rather adhere to the rationale that adopting one language as an alternative to multilingualism would have deeper positive effects in reinforcing transnational cooperation between partners (Feely & Harzing, 2003). Therefore, language diversity should be approached by the company according to the contextual incentives and the purposes of usage, thereby taking stock of a proper language policy, in which linguistic diversification can be encouraged alongside a corporate language.

7.5. The Communicative Aspects: Orality and Composing

English has the upper hand by a wide margin in online written communication, with less but still appreciably significant occurrence in the Chinese Company. Arabic is overwhelmingly present, being a tongue frequently used for multinationals' direct and indirect oral intra-communications. Even though less common in the Chinese company, compared to Arabic, English enjoys a highly great value just next to Arabic being used for intramural spoken communication (face to face, online and/or by phone) of multinationals. Arabic and French are not influential languages of domestic company online written communications, they are meagerly present in multinationals. In the French company, however, French holds a respectable position in both online and in-person networking. Like French in the French company, Chinese maintains a decent footing in use for the said verbal interactions alongside the computer-mediated written communication in the Chinese company. Comparing the reported frequencies of the use of French in the French company with those of Mandarin in the Chinese company, it is readily noticeable that

French is not so much used in its own setting to the same extent as is Mandarin in its respective context. Chinese is always there with a remarkable figure for almost all purposes regardless the kinds of situations or instances at disposal.

Remarkably, Arabic is prodigiously supreme in corporate extramural dealings, but is seldom used for writing in external online communications. The timid presence of Arabic in the latter mode of communication is simply because computer-mediated written correspondences are usually the task of white-collar workers whose language skills versatility is uncontested, and who can be nationals or foreigners. In the case when these employees are expats, it is obvious that some language other than Arabic is to be used for the purpose knowing that these individuals lack (sufficient) skill of the language. When nationals are the case, then the use of a language apart from Arabic becomes a necessity by force of circumstances since, firstly, computers generally are found functioning in a foreign tongue, and, secondly, those correspondences are usually addressed to several parties some of whom cannot make (proper) sense of the content if in Arabic, including non-Arabic-language speakers. Now on the positive side, Arabic is predominant in the external spoken mode of interactions because orality involves mainly national parties (social partners, suppliers, other business practitioners, etc.) and does not entail being watchful of the formality and exactitude of the language used.

Opposite to the Arabic language, English is prestigious for online foreign correspondences of the written mode, but loses prestige when it comes to the external connections. The apparent reduced use of English for external oral contacts confirms that the involved counterparts are usually Algerian, which naturally gives rise to and justifies the recurrent employment of Arabic. English is in a position of predominance in writing because the interactants can be of different nationalities (especially when other

corporations are included in the process) and, as noted earlier on, lacking knowledge of one language or another while normally proficient in English.

The use of Chinese is significantly restricted in all kinds of external communications. This is in the main because this language gains value only when the parties involved in the interaction are Chinese. French is of moment used to some degree only for exterior written communication in the French company, but is in a poor light otherwise. Humbled by the predominant English market leadership, French is only diminishing in use even in the erstwhile more francophone Algeria. However, French is used to a certain degree of frequency in outward communications of the written form because it is still of some use in SONATRACH and other administrations of national organizations in the country.

The employment of more than one language not only dominates the domestic atmosphere inside the corporations, but also extends to prevail foreign dealings, e.g. with other corporations and business practitioners. The use of multiple languages gains the ground over the exercise of only *Arabic*, *Chaoui*, *English, Chinese or French* alone. It is reasonably the case that corporates are compelled to pursue a flexible adaptation of benefitting from the practice of more than one language taking effect for foreign relations.

7.6. Workplace Diversity: Cohesion for Common Action or Corrosion for Communication

Conflicts are inevitable when workers of various backgrounds are brought together in the same workspace for a common business purpose, because it simply brings together people of different backgrounds originating in a variously rich linguacultural context (Ehrenreich 2010). This conflict can be managed and resolved to differing degrees of convenience

depending on both the strategic policy put forth by the employer and the open-mindedness of the individual employees involved. Of the different types of workplace conflicts in international concerns, cultural-based conflicts are the most common among employees of a labor force comprising diverse backgrounds (Vaara et al. 2005). In the sense of weaving connections for work conduct and the bearings of cultural diversity to that effort, whether employees of different origins encounter communication barriers or not enjoys a variety of possibilities ranging from nonstop through seldom to none. The obtained results disclosed that profession contact tribulations amid individuals of diverse identities surface anyway.

Workplace linguistic conflicts particularly sharpen if the site actors are dogmatic and arrogant. Intolerance and extremism create all-time high tensions and anxieties which result in cleavage, unequal discussions and grievances at work. Workplace linguistic conflicts can yield various negative effects like work disruptions, decreased performance, and reduced productivity, as well as increased turnover. A healthy work environment is one in which employees share responsibilities, demonstrate respect, show tolerance, and accept each other's differences. Handling workspace (linguistic) conflicts belongs, in the main, to the work team individuals who are at odds with each other. It is argued that language proficiency and linguistic practices have an impact on implicit power assumption, resulting in implicit rank discriminations (Marschan et al., 1997). That being the case, the role of multinationals (i.e. multinational professionals) is grounded in the establishment of a workplace culture contrived to preclude conflicts between divergent backgrounds, especially the kind of conflicts which employees fail to resolve on their own and among themselves.

The basis for developing such a culture resides in generating an inclusive organizational climate, or an organization culture (Thomas, 2008) and setting favorable

workplace conditions proactively, to the extent possible, which foster fairness of treatment, equality of chances and equity of resources, as well as mutual respect and trust towards building strong relations among employees at all respects and levels. Multinational workforce members of the international corporations operating in Algeria appear cultured and cultivated regarding the adverse effects of language-associated conflicts on group performance and business success. There is a high cognizance and commonly shared awareness about the grave repercussions linguistic conflicts can bear on work conduct in terms of progress and productivity. It is most likely because of this awareness that they are found more broad-minded, magnanimous, and forbearing with respect to differences.

It is interestingly found that the multinational employees are indulgent with their group cultural and linguistic differences, as no such negative feelings of linguistic scorn, insecurity, or injustice are harbored among them. This indicates the positivity, as opposed to sensitivity, which characterizes the cosmopolitan work environments' actors, set in a friendly mood of cooperation and a harmonious atmosphere of collaboration. This co-existence reflects the degree of flexibility and mutual acceptance and tolerance of otherness and foreignness (Thomas, 2008; Brannen et al., 2014) in these settings. It also means that such a variety of backgrounds synchronize in a norm-like way rather than in an exception-typical manner. To take this further, work teams' diversity in terms of languages, especially, turns out a typical standard case of normality rather than an instance of abnormality in multinationals. For that matter, linguistic diversity proves the norm rather than the exception in modern day international workplaces.

Differences in nationalities seem to give rise to enclaves among individuals even with the apparent harmony bringing the diverse backgrounds together. Human beings have this natural tendency of attributing themselves to a community which manifests closest to

reflecting their identity most. And so cultural and linguistic considerations come to the fore in defining and identifying the appropriate social group reflecting the desired mindset. Groups formation based on linguistic attributes seems to be rather common within settings of a multinational status.

The qualitative results confirm that workplace linguistic diversity breeds workforce versatility; they further conform with the quantitative dataset interpretations up to a half point while the analysis of the questionnaire data yielded two opposing directions. The possibility that communication complications of one kind or another arise among employees of linguistically mixed teams in the process of conducting work polled the whopping majority of voices in the Chinese company. In the meantime, there was a vast opposition among the French company workers that their company's culturally diverse workforce members run into communication difficulties during work conduct.

The existence of variation between the companies in respect with communication breakdowns emergence among a multinational manpower is thus apparent, and is corroborated by the statistical Chi-square test calculations ($L.r = 33.511$, $T_b = 0.52$) and frequency statistics (93.5% in the Chinese company confirm the case against 69.2% from the French company who rebut it). Therefore, it is safe to conclude, based on the results obtained from both the quantitative and qualitative data analysis, that worldly-wise work team peers in the multinationals operating in Algeria, apart from the Chinese-headquartered, do not normally encounter workplace communication barriers, and the set of languages is considered to be of additive value rather than of pernicious influences at workspaces where a linguistically diversified workforce holds the stage.

7.7. Moment of Multilingual Hiring

Recruiting multilinguals appears to be unanimously expressed as the best option for the adequate management of workplace communication inconveniences. This indicates that possession of a more diverse skill set, which involves in the main proficient language skills, brings forth a professional advantage for individuals by being able to share pertinent cultural knowledge that could benefit the business and help the multinational maintain its competitive edge, and ultimately maximize its revenues. Excellent social skills, supplemented by multilingualism, enable meaningful interactions that culminate in building more profound relationships with individuals from diverse cultures and distinct nationalities. Multilingual skills are beneficial for workplace interpersonal relations and make employees an integral part of their corporation's business expansion and success. In exploiting their lingual skills and cultural mindsets in their interactions, team members with multilingual capabilities are able to effectively contribute in constructing a stronger sense of interpersonal understanding, as well as in improving the quality of relationships among employees, which leads to increased productivity.

Business know-how aside, knowing a set of languages also helps in understanding other cultures and their people on a deeper and more personal level. For more, proficiency in more than a language makes it far easier to listen and speak actively, to be keen on signaling out and understanding nonverbal cues, and likewise to tap into cultural references and differences. One of the top qualities of employees with proficiency in a variety of languages, in which their monolingual peers mostly come up short, is to monitor a cross-cultural setting considering their ability to take out social cues readily to code-switch and also pin down relatable topics to discuss.

Hiring of employees based on languages proficiency or work experience solely does not appear to be part of the employment agenda of multinationals; except in some rare cases when work experience is given credit, a scenario to witness more in Chinese subsidiaries since the job roles are usually indistinctive in these firms. Employment of individuals within borderless corporations is very much based on measures mainly, but not exclusively, including linguistic efficiency. Had it been the case that lingual capabilities on their own were the base for hiring new recruits, this would for the most part mean that the employed individuals would act as interpreters; but the results revealed there not to be so much of an opportunity for translators to join rig workforces. That said, it is only low-level staff members like roustabouts, roughnecks (also known as floormen) or –although to a lesser degree of likelihood– derrickmen that can be hired without heavy reliance on previous work experience; while derrickman is a promotion from roughneck and the latter in turn is an advancement from roustabout, these individuals are the kind of workers who perform unskilled manual laboring rig jobs and do basic tasks to help keep the workplace platform working efficiently. These laborers are contended to offer physical (in place of mental) exertion at the time when their specialist and linguistic skills betray them. The oil rig workers in place might or might not possess effective knowledge of multiple languages and expert job know-how since their jobs are heavily handwork-reliant. They can be mono-, multi- or even semi-linguals, as can they be semi- or unskilled workmen. Work accumulated experience helps in getting promoted from either one of these positions to the next; but if punctuated with language skills, job expertise would guarantee –with time– climbing to higher managerial positions, one of the reasons why high-level staff members are usually found to be multilingual work-skilled individuals.

The positive attitudes among multinational work teams, of the surveyed settings, and the auspicious views they hold towards language plurality at the site, indicate high

levels of awareness and optimism about language diversity and reveal interestingly telling facts. No pessimistic answers were reported as to whether workplace language diversity involves favorable circumstances entrusted to increase the opportunities of success, while there is a clear reproach of the idea that having more languages than a single one present in the milieu of work creates unfavorable circumstances capable of obstructing or reducing communication effectiveness. With no dim views of the advantageous and rewarding nature of workplace language multiplicity taken, a polyglot workforce remains the capital asset a multinational can have.

Accordingly, if multinationals aim to expand their businesses and horizons of operation, it is in their best interest to invest in multilinguals when hiring new employees. Individuals who demonstrate fluent communication skills in a range of languages are an invaluable asset. Even more, by having multilingual workers among their personnel, multinationals have the opportunity to make the most of these employees' fluency in interpreting and translating materials, putting an end to the hassle of outsourcing and hiring translators/interpreters. What is more, multilingual crew elements already have an in-depth understanding of the running business which would save both considerable time and resources that would otherwise be spent bringing an outsourced party up to speed.

7.8. Multilinguals in Demand: Multilingual Employees as Better Multitaskers in Preference to Translators

Relying exclusively on a third-party service provider so as to create or deliver content in a different tongue can turn out to be an austere and exorbitant misstep. A translator/interpreter is a middleperson whose task is to help conversational partners that do not speak the same tongue to connect with each other. Although the employment of translators was reported, in light of the obtained results, to be an effective solution to help

handle communication problems at work, the companies do not provide much room for hiring this category of individuals. The dearth of chances, if at all, of hiring translators can be a sequel of the fact that they would cost the company more than they could actually offer in return, given the intricate nature of the rig workplace life. As well, this scarcity of employment opportunities at the disadvantage of interpreters can be explained by multinationals leaning on the employees who can converse in several different languages.

Having knowledgeable polyglot employees on staff should be an asset of great significance in increasing productivity and expanding business overseas; polyglots can combine the roles of spokespersons and translators/interpreters at the same time, with the potential of behaving in accordance with proper business etiquette. They can communicate more authentically and effectually with workplace companions and company business counterparts from different backgrounds because they comprehend the linguistic nuances and the characteristic peculiarities of going about business in a different culture. So instead of having to hire, or outsource, translators or interpreters, multinationals with polyglots have translators on staff already; they have the advantage of two employees in one. Besides doing their day-to-day tasks, multilingual employees can save the company considerable expenses which would otherwise be spent on contracting with translators and interpreters. Hence, employing polyglot stuff is cost effective for multinationals.

While no one mono-linguistic profile alone is unanimously regarded as suitable for key (functional) occupations in multinationals, the unanimity of the subjects of the study is obvious regarding the cardinal appropriateness of multilinguals for key work positions and for more company productivity. In view of that, determining which post to assign individuals has quite much to do with the languages they have mastered; usually more than a pair, with English being in attendance. Accordingly, the allocation of individuals to key posts, intermediate occupations, and service in positions takes polyglot proficiency as

factor for engagement. As adept multi-taskers and business proficient in multiple languages, multilingual employees are those team members whose linguistic and technical know-how (knowledge and experiences, as well as task performance) is regarded significant to the effective operation of a multinational.

Translation practitioners are reportedly absent within rigs. It might seem paradoxical that in a multinational no translators are found. But the argument, based on the overall analysis of the results and building on the interview insinuations, is that multinationals do –and should– indeed use translation nevertheless, only that they occur to be resorting to translation experts in a discreet fashion unseen by employees. The first thought is that some companies resort to outsourcing instead of hiring translators. Other corporations can be recruiting translators but not within subsidiaries; they could be using translators at higher multinational levels like headquarters. In either case, rig personnel members might not learn of whether translators form part of the company or not since no translators can be seen at the workplace or even in the affiliate administration.

Speaking to business counterparts through a translator makes the conversation stiff and uninvolved, while addressing them personally in their language or in a language they understand makes it possible and easier to build and foster mutual trust and confidence. Not only do employees speaking other tongues appreciate their co-worker's endeavor to talk in their native language, but they also feel that they are being better comprehended in the different viewpoints they share and arguments they make since their interlocutor can understand the subtleties of meaning which might otherwise be lost in interpretation. Closer social and business ties and better work relationships prevail when two conversational-partners converse in the same tongue as opposed to either party always talking in a foreign language.

Compared to unilinguals, polyglots are talented as they are able to process information more quickly and efficiently, switch tasks more rapidly and readily, and solve problems strongly. Such multi-tasking, problem-solving, and information-processing capabilities make polyglots pragmatic and high-performing individuals in that they see situations from a variety of perspectives, spot and look at problems differently, and devise innovative solutions accordingly.

It is, however, worth noting that depending on the company, one or two translators may happen to be recruited, like in the case of a Chinese firm whose Chinese employees struggle to communicate in foreign languages, especially when that involves communication with SONATRACH or parties other than the Chinese.

Worthy of note as well is that companies usually resort to outsourcing translation when the need arises in preference to employing translators; and this is mainly because translation-attendant services are not needed on a day-to-day basis but are resorted to only once in a while. As companies today become increasingly globally connected and diverse, it is pivotal to recognize the significance of hiring multilingual candidates who can develop intercultural and international connections for the benefit of the company. Expansion of such connections is directly proportional to company development and business growth. As such, it is high time multinational professionals and scholars involved in corporate and business studies stopped selling language diversity short to the benefit of English as the lingua franca.

7.9. Language Training, Practices and Policies: One Language Paradigm vs. Many Languages at a Time

Whether the provision of training in the language(s) of workplace actors is of potential bearings on improving communication problems reflects exciting results, with reference to the quantitative data. While the sample from the Chinese company expressed consistent support for providing training in the language(s) of both high-level stuff and low-level personnel, the French company individuals encourage training in the language(s) of blue-collar workers more than training in the tongues of white-collar employees. The underlying reason behind this apparent divergence in attitudes between the two settings is an interesting one: it is essentially attributable to the fact that the big majority of the workforce in both these companies are national Algerians (with their L1 being Arabic, obviously).

Putting these quantitative results side by side the outcomes derived from the qualitative data analysis allows deriving the conclusion that because Arabic and Mandarin vastly prevail in use among their respective native speakers in the Chinese company, the employees of this company ascribe equal importance to both languages (with English being slightly looked down on in comparison). It is also because these employees are either Chinese or Algerian, which means that work team diversity is reduced from pluri/multi-national to bi-national, hence condensing linguistic plurality to linguistic duality. In the French company (just like many other multinationals) the case is a different one in many respects, essentially because the employees here are from different origins with expats being from other nationalities than merely French; this obviously gathers a diversity of backgrounds which brings multilingual profiles along with it. And this makes it easy to understand why in the latter company training in the language(s) of workers (all

of whom are Algerian) went to the preference of the great majority: it is far manageably easier to provide training in a single tongue (spoken by all workers: Arabic) rather than a range of different tongues (spoken by culturally distinct individuals: managers).

The aforesaid explains why the imposition of English as lingua franca was fiercely opposed as an alternative of potential bearings on workplace communication difficulties by the Chinese company employees, while it was received with some degree of enthusiasm by the French company. English may be the international business language as many see it, but it certainly is not the only tongue that matters in the workplace of corporations that are functioning at an international level. Although the English lingua franca may help in some contexts, it cannot sustain the best solution to the various communication inconveniences at work, especially in settings where knowledge of English is not a given. English can be a wise choice when considered together with some other language(s) depending on the context, but cannot fulfil the aspired effectiveness if considered alone. With that said, having a multilingual staff whose members possess a broad set of languages provides enormous benefits for the company's business.

The simultaneous existence of a set of languages makes for smoother integration of all team members into daily workplace interactions. Thus, it is with good reason to restrain from attributing magic lamp traits to English on its own, since English cannot always stand up in and provide for the different workplace communication complications. To take this further, while multilingualism gives more chances to all individuals more or less evenly and establishes balance in power among the workforce, imposing English as a corporate language risks creating workplace power imbalance in favor of proficient speakers of English at the expense of those who are less self-assured in the language. Chances are that this power shift that unequally empowers the former group can grow linguistic injustice feelings among the latter group who would not feel as good about

speaking up, if they would speak at all, in meetings or other work-associated communicative events. By adopting a multilingual policy, multinationals can gain most, or all, of the benefits of an English-only policy, and many more besides.

7.10. Pragmatism of Polyglotism: Fostering Competitive Edge and Nurturing Diversity

Monoglot workers may suffer severe consequences of their limited linguistic skills when their polyglot co-workers are speaking in other languages at work. An increased ratio of unilingual to plurilingual employees in a multinational gives rise to interpersonal workplace conflicts which might lead to the twin problems of teamwork disintegration and company economic failure. The chances are high that a monolingual employee would rear up when he attends a discussion between, say two of, his multilingual workmates speaking in a language he does not understand, and would perceive this as a deliberate action of exclusivity. In fact, there is no denial that exclusion happens at times to be part of the deal, so one employee or another may deliberately speak to a workfellow in a language that others do not understand in order to hide something, to this we conjure up the instance of the Chaoui speaker interviewee who declared that there are occasions when he uses Chaoui with his town-workfellow to conceal his ignorance of some work task conduct. In effect, use of a foreign language in the presence of a monolingual can sometimes result in feelings of oppression and serious paranoid perceptions of the communication as gossip, derision, and even plotting. That is part of the reason why employers ought to consider multilingual skills more attentively.

Why employees make use of multiple languages at work is not for show or due to company regulations, but rather relates to a number of other reasons. These include multilingualism being a standard practice in multinationals, the desire of employees to

practice and improve their linguistic skills, and the ease of communicating ideas more effectively and accordingly to fellow workers who are from diverse nationalities and speak different languages. These reasons being so makes it clear that polyglottery offers a substantial leg up on the competition in multinational workplaces. It is worth highlighting again that career opportunities are more in favor of those who have more languages under their belt; multilingual speakers are presented with larger capacity to change workplaces and switch gears with careers more easily compared to monolingual, including English-only, speakers. Today, especially in the context of globalization, people speaking more than one language are the typical standard case; speakers of only one language are now seen as the exception. Being unilingual could thwart career progression. Multilingualism is king in the modern-day multinational world. Some of the greatest profits of being a polyglot at work include the opportunity to benefit from higher salaries and flexibility to move around in the company's different work positions. In multinational corporations with diverse employees, speakers of multiple languages can become ideal candidates for leadership positions by combining their language abilities with other work experiences or (technical) skills to go after the jobs they want most.

Being able to function on multiple communication tools allows people to make strategic capital out of a varied set of linguistic talents. The issue transcends the mere ability to perform workplace clerical or managerial duties to milk other benefits. It also sustains the capacity to create innovative, dynamic, and relevant solutions to practical corporate business problems at different levels, the establishment of company thought leadership, as well as delegacy and ambassadorship to the benefit of the multinational in external dealings; this is to highlight a few of the wide range of advantages which a multilingual can leverage in a multinational. As such, beyond the plain multilingual perquisites of being able to interact with more people, being a polyglot entails the

possession of extra distinct assets to offer the business world, while multitaskers and expert problem solvers enjoy more of an edge at the workplace and are always highly coveted in especially multinational job markets. In addition, multilinguals enjoy rewardingly more earnings-generating years compared to their monolingual counterparts whose limited language abilities may turn devoid of value ahead.

Knowledge of multiple languages can set individuals apart from the competition when the opportunity for hiring or promotion rears its head. When individual employees, and their teams overall, can engage confidently in one or more additional tongues they are certainly one step ahead insomuch that opportunities can be suitably seized and workplace problems more easily addressed by them; interpersonal, particularly working, relationships should become stronger and this, in turn, helps further invigorate productivity. While employing their linguistic talents on the job, multilingual employees can reinforce and obtain supplementary workplace capabilities (such as interpersonal and problem-solving skills), professional qualities (including conflict resolution, collaboration, and confidence), and linguistic skills alike (like expanding vocabularies and improving listening and speaking skills). That said, polyglotism proffers an array of desirable attributes that are of potential value to both the employees and their employers; and so by establishing minimum lingual dexterity requirements for the hiring of new recruits, multinational companies can make the most of the opportunities that a staff proficient in languages brings: stipulations of such skills can be expressed in job ads as ‘fluency in/mastery of … is favorable/necessary’ or ‘multilingual proficiency preferred/prioritized/required’.

7.11. Individual Languages in Focus: Choice, Performance, and Power

Arabic makes for a great deal of preference among the workforce of the multinational workplaces. Its frequency of use among employees at the workplace is invariable in all settings; it is the omnipresent language in almost all kinds of communications. There is hardly any situation in which Arabic is not there. The results clearly indicate high proportions of making the most of Arabic for interaction per diem. It is expressed to be the language gaining willingness of use by, and giving comfort to, the majority of employees. The Arabic language derives its outstanding status in the circumstances from the fact that the great majority of the labor force within the multinationals operating in Algeria are obviously Algerian.

There is also a proclivity towards using English regularly to satisfy quotidian workplace conversations. Although less recurring than Arabic, English is of a daily frequent use at work ; its position is a reputable one. Its recurrence among employees gives it an outstanding role, sufficient not only to compete with other languages, but also to beat them. Meanwhile, English speakers make their way through as preferred individuals to converse with. With the evident scarcity of English native speakers in the contexts, it would not be a faulty reasoning to combine, link, and include this positive tendency towards English language speakers to multilinguals. Put in simpler words, because English is mostly spoken as an additional language, those who speak it can legitimately be considered (rather, are) multilinguals.

Although not entirely outed, French and Chinese tail off in the order of favorability of use among multinational workplace individuals compared to the other linguistic profiles. Significantly less salient than both Arabic and English, French gains some ground over Chinese regarding personal disposition of use, generally speaking. This is

because French is not that unfamiliar to Algerians whereas Chinese is perceived by Algerians as an exotic language, and that is why the former tongue is found to give more comfort and set more readiness of use, if need be, on the part of multinational workplace actors as compared to the latter. After all, French is found embedded through the employment of certain expressions and terms in the colloquial speech of Algerians. It should be reminded that comfort and readiness do not necessarily mean actual use, the expressed preference is merely a response outcome of an interrogation meant to see whether the linguistic constellation found in multinationals operating in Algeria holds, generally speaking; the main aim is to reflect on the linguistic diversity reality in the contexts.

Correspondingly, both Chinese and French are depicted within a narrower comfort zone and reported at a level of sparsity since they are more restricted in use to their native speakers. In the French company, French is intermittent when the involved parties are French, but can hardly rear its head otherwise. Chinese is found powerfully present in the Chinese company. The Chinese are very loyal to their tongue, and persist to use it in all circumstances, even when their interlocutors do not have the slightest of clue about the discourse at play. It is a reported argument that the first language the Chinese use in virtually every occasion/encounter is Mandarin, not only when addressing each other but also usually when talking to others, then proceed with some (functional) English or Arabic if they thought their skills in these languages can serve to some extent.

With the steadfast growing multinational dominance of the Chinese companies in Algeria and in the world, the conclusions emerging from the aforesaid lead to a pair of possibilities: that the individuals in question lack the skills it takes to hold a convenient communication in other languages than Chinese, or that they want to make sure their language can be attributed a market value (and be learned) to rival that of both the local

language (Arabic) nationally and the supposedly world language (English) globally. Despite this, non-Chinese employees argue that Mandarin is a very difficult language to learn. Comparing the Chinese to the French, each in their respective companies, the latter seem to realize the diminishing business communication role of their language (in which they themselves appear to be losing confidence) as a language for corporate communication, and show no inclination towards promoting its use in the workplace, nor resistance to abandoning it for some other language. They rather turn out submissive to English instead.

Interestingly, whereas Arabic, English, and Chinese speakers derive (communicative) power from their languages, French attributes vulnerability to its speakers being often, and only, used between its natives. Because Arabic is preponderant in the settings and everyone is being exposed to it on regular basis, it exerts special positive influence on the workplace actors who emerge able to understand a fine deal of the work talk in this language even if they cannot speak it (well). After all, body language plays an undeniable role. One thing is almost certain, Arabic speakers and Chinese speakers can be more successful in learning other languages (English and French in this case), whereas Anglophones, Francophones and other Allophones may struggle greatly to pick up some useful vocabulary and expressions for basic communication in Arabic or Chinese.

Unsurprisingly, multilinguals are reported to be the top-most preferred category of workplace players to hold contact with within multinational teams. This is simply because multilinguals afford speaking in virtually any language their interlocutors would choose to use. While people tend to enjoy the much ease and comfort to self-express in their language of nativity, it also gives them more power and spontaneity during the conversation. Power could mean confidence too, since humans –by nature– feel more

confident when speaking in their native language. Despite this, or rather because of this, multilingual employees do not lose power at work. Rather it is quite the reverse, their power does indeed emerge from that very trait of being able to converse with their culturally (hence linguistically) diverse peers in their native language each, which makes them the center of attention and a real invaluable asset on site. By all accounts, proficiency in languages and work experience improve status and occupational prestige in the hierarchy of power.

7.12. Multi-layered Communication as a Management Magic Lamp

Today, with communicative needs increasingly coming to the fore in dealings of well-nigh all sorts, giant organizations find their dependency on communicative effectiveness enormous. In effect, while eschewing communicative exigencies, multinational enterprises are progressively hard put to keep up with business demands. To make profitable sales both locally and worldwide, global firms aspire to reach a select compromise of language usage which will earn them a mesmerizingly international clientele on one hand, and manageably wide-open markets on the other; and that rests very much, if not utterly, on parameters of communication as a base component of *relation* and *information*. Within a worldwide-operating company, communicative competences –individual and collective– constitute a great pillar of prosperity. Proceeding from the claim that the crisscrossing web-like connection between language and economy is drawn by communicative effectiveness, the pair of dimensions regulating workplace interpersonal and intercultural communications come to the fore of concerns. For a multinational to thrive economically, the personnel need be highly proficient communicators.

At present, professionals engrossed with the transnational growth of enterprises pay more attention to language, being both *regulator* and *monitor* of communication

networks that deliver information. The fact of the matter is that we now actually speak of *nomadic* knowledge, words, and meaning; linguistic or cultural barriers to communication have been minimized by information technologies, and the frontiers between different languages and cultures have as well been made penetrable by immediate contact. There is, in point of fact, more to the solution of the languages divergence issue than adopting and/or adapting to a lingua franca; it has been demonstrated that, despite its inherent utility as a common language in several transnational environments of a plurilingual character, English is no panacea. Scholars were absorbed with figuring out the causes of, effects of, and solutions to linguistic barriers. It is confirmed that actors fabricate the *linguistic landscape* of their multilingual setting through opting for the language(s) of interaction as the circumstances dictate, likely via employment of more than one language or via translation. Put another way, locutors exploit language as a resource interaction and interpersonal organization.

Within corporate business contexts, as is the fool to a wise man, so is a monolingual employee ignorant of English to one skilled in more than one language and at ease with English. Overall, the high-level staff meets the criteria of multilingual competency; and so too does the low-level personnel within the companies explored. The linguistic diversity that the corporations surveyed abound with is of key contribution to the boosting of their economic status both in the short and long term. Likewise, individuals at grips with a multitude of languages are seen far as better favored on site. This is because their linguistic competences are a big investment to both parties, i.e. the firm and the actors. Mastery of more than just one tongue, if not to provide advancement in work positions, preserves flamboyantly the current occupation flavored with some extra influence and benefits. The appropriateness of linguistic competences among the staff members as regards the job profile is highly prioritized in management. More proficient

manipulators of foreign languages are perceived as *animateurs* of business. It is particularly along these lines that the indispensable worth and cost-benefit of language diversity to the productivity and cost-effectiveness of corporate business and management is found of firm place.

Besides being of strong influence on employees' affluence, language incorporation in corporations is the key property towards prosperity. Being the least, yet the best, capital to have within a business environment under the pressure of a globalized economy, linguistic competency opens up many opportunities towards individual, collective, management, and corporate flourishment. The required linguistic efficiency is determined by and attributive to the economic status of the company; and on the traces of today's increasingly multinationalizing business, the need for a set of languages as tools for intra- and intercommunications and business conduct is undeniable.

7.13. Communication Tools as Brands of Professional Insertion

The weight of the (communicative) linguistic tools is uniquely privileged among the corporations. Language diversity is key to profitability and competitive edge. Plurilingualism proves an incomparably invaluable capital that is worth its weight in gold for multinational enterprises. The plurilingual competence characterizing the members of especially the high-level personnel evidences the substantiality of languages and their worth, merits, and excellence in upgrading business life and task execution at the workplace.

It can be argued that the commonness of a range of languages at the workplace is not peculiar nor handicapping to the actors, neither is it hindering nor thwarting to the running of business. On the contrary, this linguistic multiplicity and variance is a natural plus to the staff and the site; it is the spice of everyday interactions taking place in the

context of the rigs. Several linguistic tools operating in a simultaneously coexistent and homogenous mixture yields really advanced quality of business pursuit and interpersonal interaction. It appears that language plurality opens up a wide window of opportunities for multinationals to seek effective worldwide reach. Practically, this multiplicity of languages proves, in more ways than one, to be a typical inter-communicative standard in the working life of multinational workforces.

In any (social) situation or event, business instances included, it is admirable how much comfort and satisfaction one gets from being able to communicate and make sense of what is being said in a group, and thence be aware of what is going on around, just because of proficiency in the language used. Fluency in more languages than one expands one's professional network, adds a layer of relief and ease when conversing with others by being culturally sensitive, and opens up a wide range of additional opportunities which would otherwise be out of one's reach. At the workplace, the degree of use of a language is bound to the need that arises from the desire to disseminate, acquire, and/or express information to the interlocutor in order to keep the well-running of business in progress. In the contexts of the study, there is a claimed appreciation of the value of the languages of communication as primary means for work progress and building interpersonal relationships. On that account, workplace language diversity proves far more luxurious and worthwhile to the flourishment of the corporation. Hence, more languages in use entail more proceeds.

That promotions and assignments of posts are determined by work experience only is not a valid claim. There appears to be a great influence of linguistic abilities on the opportunities of key positions allocation and advancement. Individuals speaking more languages are most likely to be attributed managerial occupations. Hence, plurilingualism is one such paramount factor determining which individuals will be selected for the

running of sensitive occupations. Of course work experience alone is not a sufficient coefficient to gain executive level jobs, neither are language skills solely; but a combination of the two is perfect for the purpose. So know-how and multilingual competence combined in one person almost always guarantee ascription of seniority in the hierarchy of multinational company positions. Legitimately, higher hierarchical positions are given to employees speaking more than just one language considering their ability to monitor the sensitivity of the tasks assigned to them as particularly fine languages users.

7.14. Conclusion

This chapter has specifically been intent upon discussing the outcomes of the analysis results in the fifth and sixth chapters. In fact, linguistic diversity is deduced to be more advantageous than disadvantageous in the research contexts considered. It was found that with the simultaneous coexistence of different languages, English stands out. It goes in line with the postulate which stipulates that having a common language agreed upon as a corporate language for facilitating communication when diversity proves inefficient in situations of incomprehensibility among workers. Also, multilingual workplaces are characterized with an important aspect which is interculturality –owing notably to linguistic differences emerging from variant backgrounds of individuals in global busines– and that is now becoming familiar in language business literature as *linguaculturality*. In the multilingual workplace, multilingual skill is found to be economically rewarding, at least in that it is one chief incentive at international firms to take decisions for selecting employees. In this chapter, one conclusive statement is that some languages have more importance than others because of their economic value and business mobilility reinforcement. In the contexts studied, Chinese language, for instance, is found to be surprisingly gaining momentum in the Algerian business excelling over

French while Arabic and English hold pertinent both in Algerian- and Foreign-based companies; also, the findings show French bringing up the rear in all of the contexts investigated, with an exception made of the French corporations.

General Conclusion

The present research project has focused on exploring the implications that linguistic diversity has for multinational businesses through the application of a multivariate mode of research embedded within a mixed method design. It basically starts from setting a paradigmatic approach that uses a methodical model, progressing from tenets established by theoretical and empirical studies in order to situate the rationale that frames the general aim of this study. This research is, thus, an attempt to cast light on an overlooked issue in the Algerian context, by examining the fact of language diversity at internationally-based corporations, using a completely different discipline from the customarily envisaged research orientations such as sociolinguistics and similar interdisciplinary fields that focus on language matters. It is, again, an approach that would be suited within an infringe of economic reasoning to human language, and to language diversification variable in the first place, by taking stock of tracking the different levels of associations among economic and linguistic variables.

The progress of the work has followed a definite framework, by grounding a conceptual basis for the field on which the thematic core of the study is based. The research problem was introduced by presenting it in terms of a set of related issues which were ultimately formulated as research questions and hypotheses, before offering an outline of the rationale backing up the research. The first chapter presented the encompassing notion of how education matters in an economic sense, mainly by showing the relevance of economics to educational attainments in terms of valuing the returns of schooling for individuals. Therefore, a number of theoretical models were discussed, especially that knowledge acquisition gained over years functions as an invaluable capital asset that is different from all perceptual forms of materialistic capitals. In that regard, the

conceptualizations of educational attainments are embodied as rewarding resources in economic terms both individually and socially.

Of course, in discussing the different models of how the knowledge attained through years of education comprises intellectual wealth in the labor market, language is no exception. It was in chapter two that language as a form of human capital was covered, by particularly substantiating the claims in favor of that paradigm based on empirical findings from previous studies at different levels of investigation. It was in chapter two also that a range of supportive evidence was introduced in order to show how foreign language skills possess a unique value in international business. A survey of international studies was carried out in order to show foreign language skill importance as an agent producing value for its users. Ultimately, on viewing the significance of linguistic variables within economic sectors, language adequacy is widely perceived as impacting the socioeconomic status of individuals, and as such it is established that in the global workplace business, earnings are significantly affected by language knowledge and skills.

Having established both a notional and practical paradigm for language centrality in work environments, chapter three is especially concerned with modelling the basis for language diversity in internationally-oriented entrepreneurship. In this chapter, the role of language in firms was examined. Of the main issues dealt with is how language can be a facilitating factor or barrier in such contexts. Language diversity was also discussed in light of the challenges facing transnational business, so that an implicit character of plurilingualism was presented within a model that is in opposition to views that see diversification as a hurdle. This argument lies at the heart of this study.

The chapters that followed comprise the practical part of this research project. Chapter four provided a baseline for the methodology followed, the design guiding this

research and the statistical procedure used to analyze data. Chapter five is completely devoted to the application of the statistical model chosen for data analysis as a preparation for examining the merits of the projects discussed in chapter five. In the following paragraphs, considerable attention is given to the overall research outcomes in the tradition of a critical evaluative approach.

The title of the present thesis describes a pivotal feature of contemporary stateless organizations: a progressively more plurilingual and multicultural composition of their workforces, and the resultant encounter of cultural diversity and language multiplicity. The powerful drive behind this dramatic development is (economic) globalization. In fact, as referred to above, the research at hand demonstrates an interdisciplinary effort striving to foster collaborative work on language diversity, education, communication in business, language policy and planning, as well as economics. In its nature a multifaceted construct, language constitutes a subject of deservedly engaging interest for many disciplines, which, despite their crisscrossing concerns, have not yet coalesced at a level of detail that is unequivocally invaluable to the area under discussion; these fields chiefly include: education, linguistics, intercultural/personal communication and economics.

Linguistic diversity is a controversy whose core question runs as: Is language multiplicity a threat to the individuals and their community, or is it rather synonymous to an edge? Innermost key query in this research project is whether language diversity can be translated into individual and collective advantage in multinational settings (i.e. for employees and their employers), fostering the socio-economic development of multinational workplaces and nurturing cultural assets as well as ideological betterment of multinational workforces. Advancing the investigation-based knowledge that is required to satisfy such inquiries involves the weaving together and promotion of multinational discourse and interdisciplinary research.

It is in multinational workspaces that individuals come into contact with a wide assortment of languages and it is there that they live under optimal conditions for developing diversified language/linguistic skills. The use of languages in a multinational environment is not determined by employees alone, nor is it entirely in the hands of the employing entity (by means of imposing a given language). Rather, depending on the situation, there may be significant communal pressure to bring into play particular languages in specific settings. Regularity of use of certain languages to accomplish particular tasks and perform specific activities in the status quo reflects the fact that no single language alone suffices for workplace communicative needs and workforce interactive requirements in different sets of circumstances and diverse state of affairs in multinational companies.

A company that fails to map out its language management penalizes itself more, perhaps, than it wrongs employees by depriving them of a healthy intercommunicative atmosphere. The lack of a language policy within multinational corporations is attributable to the fact that they operate in countries with different cultures, languages, politics, and such. As the mother multinational company has daughter companies in different parts of the world, environmental curtailments arise in the respective host context of the affiliates no matter. Such stateless firms, being unsystematic language planners, usually react to such constraints inappropriately, by aspiring to adjust to them in preference to taking action on them. It is not plausible, for that matter, to opt for a unique language policy for all contexts, nor is it easily manageable to devise a distinctive policy for each setting. Translation aside – as an expensive alternative – the likely linguistic scenarios in a corporation operating in a particular country is to use the language of the parent company, the language of the state it is based in, or English. It should not be forgotten that absence of a clear language policy indicates some confusion here, especially when it comes to

official communication. While such choice might generally be expected to fall on English given its apparent hegemony in borderless communication, the argument here is that it is wiser to go for the three language scenarios together: parent company's when communicating with headquarters, host environment's when communicating with local employees/customers (= with locals), and English for either, both or otherwise as the case maybe; added to the collection is the language of the majority of the staff members, which maybe the same as one or more of the three alternatives cited above or an additional option.

The general trend to manage diverse workplace linguistic scenarios and to solve the issue of communication barriers, as reflected in the literature of language planning and policy and that of corporate/business communication, is to opt for a common corporate language, which is routinely thought to be English given its international prevalence. Be that as it may, however, considering the expanding intercultural contact in the wake of the swift growth of globalization that promoted business internationalization giving rise to inter-linguistic webs of association, a lingua franca may not always be the wisest option in multinational contexts. In any case, an English-only-corporate-language policy applies only insofar as all individuals involved know the language. A more sensible choice might be, in fact, selection of the languages most used (a homogeneous and controllable number) among the employees. Otherwise, the situation will tend to rely more on translation, a comparatively costly–though perhaps less efficient– approach. With multinational stakeholders brushing off such weighty considerations pertaining to adoption of a particular language policy, a global review of the literature generally discloses that companies still hold to an English-for-all policy at the expense of the apparently more economically advantageous language-multiplicity policy.

In the context of the present investigation, whereas the primary functioning language of written communication is English, spoken interaction –while negotiated in all situations– involves the different workplace languages. Parallel use of the workspace languages appears to be an appreciated standard practice among the multinationals explored here. Language choice and use are determined by the nature (social or occupational) and form (written or oral) of the interaction as well as the individuals involved in it. Prioritizing function over form, the seeming ambiguous geocentric language policy adopted by the multinationals gives wider room for language choice flexibility, allows a greater margin of linguistic discrepancies and creates a higher tolerance for language differences. As evidenced by the results here, language plurality is actually, by far, more a bridge than a barrier. Limitations on language proficiency and lack of adequate language skills among the staff may reduce small talk and handicap social relationships leading to thin communication which could further put multinationals' productivity at a disadvantage. Language cliques, although reported as unproblematic in the case settings, may be a source of division and conflict(s) of interest, and can thus have effects on the overall performance of employees in the workplace.

A business is only as good as its workforce. Corporate executives would do very well to look upon the resolutions and resources required to craft more effective strategies towards maximizing benefits and exploring growth options; one such worthwhile endeavor is investment in language learning solutions to overcome language barriers. Language training is vital in that it improves corporate interactions by having well-trained workplace players who would feel more empowered, valued and invested. When they become a company's focus, high-quality language training programs will fine-tune employee work performance and orientation; the outcome will be numerous potential benifits. While the existence of a language barrier in the site may well be a make-or-break situation,

investment in foreign language learning is a real deal. Besides enhancing personal skill sets significantly, acquiring another language can impressively widen individuals' professional horizons and open up a world of unique opportunities for them. Learning a language caters for both personal improvement and professional advancement and makes for an ability to efficiently communicate with others by optimizing one's understanding of their culture.

In the workplace, being able to interact in a set of languages is a valued asset. The ability to communicate in multiple communication tools makes it easier to work with speakers of different languages in mixed-language teams – particularly those who do not speak English as a mother tongue, or at all. Languages are both a current reality and the future for international companies. They stand out in and contribute to multinational business growth. Multinational professionals cannot afford to overlook the ways in which languages benefit business. In today's globalized business world led by multinationals, the ability to communicate cross-culturally using a range of different languages is not merely a nice-to-have or desirable asset, it is a must-have. There is widespread awareness in the international labor force about the crucial value of speaking more than one language at work and how that might be reflected in tangible, potential opportunities for both individual employees and their company of employment; these translate into increased productivity which leads to higher dividends and other major economic returns. As workplaces become increasingly more global, learning multiple languages would place individuals well ahead of their competitors in the job market; it potentially provides job security, leads to career development and results in raises.

The individual's perception and knowledge of multiple communicative tools and their practices are important for a full understanding of the relationship between business and language and can help find answers to how, why and what languages should be

learned. Awareness about the employees' ways of thinking about business management and language will also help corporations to establish priorities for the integration of (more) languages in progress, success and productivity policies and strategies. The conceptualization of language within corporations palpably takes the form of an inexhaustible wealth on a wide range of considerations. Linguistic pluralism fosters cohesion and profitability in corporations.

Pedagogical and Socioeconomic Implications

The findings of the present research proffer a number of potentially pertinent implications for the multinational workplace as well as for language education sectors, at particularly the four academic cycles from primary to tertiary.

In the case of the company-related implications, because languages are of paramount importance in the workplace, multinational companies' productivity lies in the most part with language management whose lack can lead to calamitous business consequences otherwise avoidable by means of effective management strategies. Corporations are thus urged to have linguistic audits in order to better gear their workplace linguistic situation. In Algeria, the national language (Arabic) is especially advised to be given due attention in corporate language management strategies, and encouragement of using foreign languages (specify which languages and justify why this claim) rather than favoring English lingua franca is highly recommended.

Companies are also recommended to provide language training (in-company language courses), especially in Arabic and English, as well as Chinese in the Chinese companies in particular. And the language training should be assimilated in accordance with the workplace needs and professional purposes; functional language learning would do, apparently. The current status of Arabic in international business communication and

its use in multinational work contexts is not sufficiently addressed in research; and so, such a role of Arabic should be a cause of primacy for reflection; while the previously reported overrating of French should be seriously weighed up in the multinational linguistic balance to draw on its real ranking in the linguistic market priorities.

As for the classroom instruction language regarding pedagogical implications, the educational systems in Algerian schools and universities should be adapted to host more efficient foreign language teaching/learning. Because French is retreating considerably much in status in the world, a better investment is one that would strive to foster learning other foreign languages, especially English. And this learning should be geared to fit actual and operative language use apart from the running, traditional, passive, mere academic instruction of rules. That is, an orientation towards communicative language teaching and learning of linguistic skills for casual interactions would facilitate and boost communication effectiveness in international work teams.

The idea is that it is recommended that a slight change of language academic instruction is made. It would be preferable to have Arabic as the only language of instruction till the fourth year in primary education where English would be introduced; then addition of other foreign languages say, Chinese, Spanish, German, Italian, and French) in the curriculum duly later on in post-primary education. Opting for an only-Arabic-instruction for the first four years in primary school should allow learners to focus on and grasp the mother tongue masterfully. For that matter, having an Arabic-English bilingual education, or at least partially English medium curriculum instruction, can be efficient a strategy both to save time and effort of and yield more effective and appropriate language learning. That Algerians are null in Chinese is point of debate for the Chinese managers. They perceive the importance of Mandarin for the near-future Algerian and global markets, especially that more and more Chinese companies are investing in Algeria,

not to mention the Algerian-Chinese trade relations which have recently more than ever before been taking big strides. For this reason teaching and learning Chinese would be a very good investment.

Limitations, Recommendations, and Directions for Further Research

The present study took interest in business communication in multiple languages in hydrocarbon multinationals operating in Algeria. The situation may be significantly different in other settings, and the generalization aspect of the results and their outcomes of analysis may be challenged. The inclusion of only two samples from two different company teams for the questionnaire, and a limited number of participants from four distinct companies for the interview, limits the generalizations of the findings since other companies in the same sector can present different circumstances. A study of other companies nationally in comparison with other studies abroad would reveal if the conclusions apply to all multinationals or if they remain company-, sector-, and country-specific.

In fact, the situation and languages used in today's rapidly changing multicultural business world are not static and remain far from being fixed. Besides, while it is typical that Algerians code-switch frequently and strategically when communicating (Seddiki, 2015), the linguistic repertoire of Algerians is a complex one due to the Algeria's long history leading to a multiplex linguistic panorama: this reflects in the Berber-speaking native population (Labed, 2015) as well as in the diaglossic situation and prevailing presence of French in the country (Sahnoune, 2014; Negadi, 2015). For such reasons, the results of the present survey remain limited to the particular companies investigated and to the specific context of Algeria. They cannot be firmly generalized to other companies, nation states, or time frames. Again, if at all, the application of the study's findings to

other multinational entities should be done with great care. Further research is required for a more enhanced comprehension of the effects and influences of languages in multinational business settings.

While the researched theme is multidisciplinary and multilingual in nature, the literature review leaned mostly on references written in English, when consideration of references in other languages like Arabic or Chinese could have provided a better framework and understanding of the situation. This limitation is due to the dearth of relevant Arabic-language academic works, and the researcher's Chinese-language deficiency. Some of the articles cited, however, are in French.

The fact that the interviews were not conducted person-to-person prevented a more complete reflection on the attitudes, perceptions, and behaviors of the participants regarding the issues addressed. This is especially because physical presence gives more clues about other dimensions which words do not convey. Also, if face-to-face, interviews could have been carried out more suitably, depending on the varying natural physical reactions (non-verbal communication cues) of respondents, which are missed out on in virtual verbal conversation between the interviewer and interviewees.

The lack of translators for the Chinese interviewees is another limitation in this work. While all the other interviewees were given the privilege of responding in any language they preferred (essentially their mother tongues each), the Chinese were asked to answer in English –a language they are generally found to struggle with in order to adequately express their thoughts. This is because the researcher's skills in Mandarin are limited. So the Chinese informants were not given the chance to self-express in their language as no bilingual Chinese translator was at the disposal of the researcher. For this reason the researcher felt that substantial information was being missed out on since the

focus of participants seemed to shift for finding the adequate words that could reflect their ideas at the cost of the natural flow of thoughts. Accordingly, a similar qualitative study in which the Chinese would be given the privilege of using their language is recommended to continue this line of research in Algeria.

That the interviews were held mostly with rig foremen thwarted full confidence in the generalizability of the expressed views to all levels in the multinationals explored (like subordinate levels and higher managerial levels).

Observation being an effective means of data collection significantly helps in further exploring and supporting the qualitative data collected by means of interviews. With interviews having been conducted virtually and with a limited number of participants from each of the companies surveyed, fieldwork observation was impossible. Therefore, the perceptions and opinions expressed in the interviews cannot be taken as a full representation of all workplace language practices. The researcher is aware that the number of interviewees taken should stop at the saturation point (i.e. when the expressed opinions become cyclic with no new information obtained), but in the case of the present research that was impossible because four different corporations were involved. It is the researcher's belief, based on common sense, that saturation can be reached with a low number of participants only when investigating samples from one or two companies, but that when investigating several companies, the threshold should be higher.

Considering these limitations, we would like to underline that we consider this research line to be highly worthy of further exploration. Carrying out similar studies by means of interviews in companies, and also in other (multilingual) contexts, would be valuable to contrast the results. We would therefore like to provide some future directions of research in this area.

Because the issue of languages within business communication can be addressed from quite an array of different perspectives, conducting similar studies using other interview questions and questionnaire items will likely significantly further the understanding of and enhance the knowledge about the topic. Conducting similar investigations using other research instruments besides the ones used here could also bring about significant positive outcomes.

In addition to the use of interviews and questionnaires, conducting observations in the workplace can be quite prolific and revealing as well. Data obtained from observations are expected to substantiate the results and enrich the findings. Accessing workplace sites in-person to observe how interaction actually takes place among employees, rather than banking merely on their perceptions, should provide a better, deeper, and more objective insight into actual language practices and linguistic realities. Observations could be done by attending different meetings and participating in the various situations entailed in the work and social daily lives of employees. Better still would it be to invigorate such a triangulation with focus group discussions.

Larger-scope studies are required to gain a deeper and more comprehensive understanding of the language practices and linguistic realities in worldwide-operating organizations of this type. More studies need to be done in other multinational companies operating in Algeria (hydrocarbon-related or otherwise) in order to better investigate the bearings of multiple language skills on the workforce, workspace, and marketplace. Also, because hydrocarbon multinational companies are more concentrated in Africa and the Middle-East, which are both significantly different contexts from the Western world where much of academic research involving multinationals is done, more research is required to further explore and compare/contrast the results of the effects of languages in these entities in different regions.

Moreover, this research project focused merely on the employees' views and perceptions about workplace linguistic practices in day-to-day verbal interpersonal interactions. Written communication (via hard documents or computer) was left out of focus due to the participants' withholding of consent to sharing any such documents or emails. In light of this limitation, conducting a similar broader-in-scope study including the analysis of written communication is urged.

A final limitation is that the study included samples with an imbalance in numbers between locals and expatriates, where nationals clearly outweighed internationals. The qualitative study was carried out with a relatively restricted number of interviewees due to the difficulty to reach out to more employees, especially foreigners. It is recommended to conduct the same study with teams where non-nationals are in majority. Also, broadening the size of the samples would be worthwhile.

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Appendices

Appendix 1: Questionnaire in English

Dear participant,

This questionnaire is meant for my postgraduate research project about *language diversity inside Algerian-based multinational companies.* Your sincere answers will be appreciated as they will help in understanding the bearings of the presence of several languages on multinational workplaces and multinational workforce. Your responses and the data collected will be treated entirely anonymously and confidentially.

Abderrazak BEDDIAF (razak.beddiaf@hotmail.fr)

Participant's demographic profile :	
* Gender: ☐***Male*** ☐***Female***	* Age:….. ***years old*** * Nationality:……
* Mother tongue(s):……	* Work experience:…. ***years***
* Language(s) spoken:……	* Current Position:……
- You acquired the languages you speak by means of:	
☐***a.*** *Formal education (public school/university)*	☐***b.*** *Informal instruction (private school)*
☐***c.*** *Language Training provided by the multinational*	☐***d.*** *Self-taught*
☐***e.*** *Previous working experience in (an)other multinational(s)*	☐***f.*** *Work experience overseas*

---------- Part one: ----------

1. How do you react if a conversation in your company is held in a language you do not fully understand? **(Please tick all that apply)**

	a. You make a low profile
	b. You leave the scene
	c. You ask for an interpretation/explanation
	d. You engage in the conversation although you do not master the language well

2. What do you do when you realize that you are speaking in a language your mates find difficult to understand? **(Please tick all that apply)**

	a. You keep on speaking in that language
	b. You address the respective issue to whom it concerns in a language they understand
	c. You alternate between languages (code-switch) according to the issue of interest
	d. You keep on speaking in the same language then translate/ask someone to translate
	e. You shift to another language that is understood by everyone, although you do not master it well
	f. You shift to a language that is understood by the majority

3. Which of the *following languages is/are used in the following meetings?***(Please tick all that apply)**

	Arabic	English	Chinese	French
a. Work team briefings				
b. Rig work team meetings				
c. Management staff meetings				
d. Company expanded meetings				
e. Meetings with the company man				
f. Meetings with the employees of another multinational				

4. In the company, which language(s) is/are used in the following cases/instances/?**(Please tick all that apply)**

	1.Arabic	**2.**English	**3.**Chinese	**4.**French
a. Computer programs				
b. Workplace controlling screens software				
c. Labels of workplace hardware (equipment, tools,…)				
d. Documents (reports, contracts, CVs, etc.)				
e. Display panel				
f. Mess (Cafeteria/coffee breaks)				

5. Who uses which language(s)?**(Please tick all that apply)**

	a. Worker to worker	b. Foreman to foreman	c. Worker to foreman	d. Forman to worker	e. Forman to company man	f. Site employees to base administration
1.*Arabic*						
2.*English*						
3.*Chinese*						
4. *French*						

6. Which of the following languages are used by your company for communication? ***(*Please tick all that apply*)***

	A. Internal Communication			B. External Communication (social partners, suppliers, other business practitioners, other corporations, etc.)		
	A1. Written communication	A2. Spoken communication		B1. Written communication	B2. Spoken communication	
	a. Online	a. Face-to-face	b. Online or by phone	a. Online	**a.** Face-to-face	**b.** Online or by phone
1.*Arabic*						
2.*English*						
3.*Chinese*						
4.*French*						

Part two:

For more accurate responses, please read through the options provided for each item on the table; then tick (✓) the corresponding answer (1-strongly agree; 2-agree; 3-disagree; or 4-strongly disagree) for each option.		**Strongly agree Agree**	**Disagree**	**Strongly disagree**
A. Employees of different origins encounter communication problems in the company (at work)				
B. Employees of different origins speaking different languages	1. feel linguistically insecure			
	2. form linguistic ghettos			
	3. get linguistic injustice feelings			
	4. show scornful attitudes towards speakers of some language			
C. Linguistic conflicts affect work conduct in terms of progress and productivity				
D. Communication problems in the workplace can best be solved by	**1.** recruiting multilinguals			
	2. recruiting translators			
	3. imposing English as a common language			
	4. providing training in the language(s) of foremen			
	5. providing training in the language(s) of workers			
E. For the overall performance of the company, the uses of languages in the workplace is useful				
F. At the workplace, having knowledge of languages is of primary significance				
G. You use more than one language within the company because	*1.* of company regulations			
	2. people you talk to speak different languages			
	3. it is standard practice in multinationals			
	4. you want to practice and improve your linguistic skills more			
	5. you can communicate your ideas more effectively to your fellow workers accordingly			

	6. it eases communication with individuals of different origins				
	7. to show off your proficiency and to break daily work routine practice				
H. The languages frequently used every day by employees at the workplace are	1. Arabic				
	2. English				
	3. Chinese				
	4. French				
I. The language(s) you prefer to use for every day communication at the workplace is/are	1. Arabic				
	2. English				
	3. Chinese				
	4. French				
J. At work, you prefer to hold contact more with	1. multilinguals				
	2. Arabic speakers				
	3. English speakers				
	4. Chinese speakers				
	5. French speakers				
K. Multinational companies, including the one you are working in currently, do hire translators					
L. In multinationals, promotions and assignment of work positions is determined by work experience only					
M. Those who are more appropriate for better work positions and for the company productivity are	1. Multilinguals				
	2. Arabic Speakers				
	3. English Speakers				
	4. Chinese Speakers				
	5. French Speakers				

N. Multinationals hire employees based on	***1.*** Language proficiency only, irrespective of work experience				
	2. work experience only, regardless of language proficiency				
	3. proficiency in languages together with work experience				
O. Presence of several languages at the workplace **is**	***1.*** advantageous and rewarding				
	2. disadvantageous and hinders communication				

---------- Part three: ----------

1. Please write down here any other language(s), if any, used than those mentioned on the tables above:

_____

What do you recommend to overcome communication difficulties, if any, caused by the use of multiple languages in your company?

_____

_____

_____

2. If there is anything else that is not included on the tables above and you think it is important to add, or you would like to provide any recommendations, please use the free space below.

_____

_____

_____

YOUR COOPERATION IS HIGHLY APPRECIATED!

Appendix 2: Questionnaire in French

Cher participant,

Cher participant, ce questionnaire est destiné à mon projet de recherche de post-graduation sur la diversité linguistique au sein des multinationales installées en Algérie. Vos réponses sincères seront appréciées car elles aideront à comprendre les repères de la présence de plusieurs langues sur les lieux de travail auprès des multinationales et la main-d'œuvre multinationale. Vos réponses et les données recueillies seront traitées de manière entièrement anonyme et confidentielle.

Abderrazak BEDDIAF (razak.beddiaf@hotmail.fr)

Profile demographique des participants :

* Sexe: ***Male*** ☐ ***Female*** ☐ * Age:…….. * Origine (Nationalité):……

* Langue (s) mère(s):…… * Années d'expérience:……..

* Langue(s) parlée (s):……* Poste actuel:……

- Vous avez acquis les langues que vous parlez au moyen de:

☐ ***g.*** *Education formelle (écoles publiques /université)* ☐ ***h.*** *Education informelle (école privée)*

☐ ***i.*** *Formation linguistique dispensée par la multinationale* ☐ ***j.*** *Autodidacte*

☐ ***k.*** *Expérience de travail antérieure dans d'autres multinationales(s)* ☐ ***l.*** *Expérience de travail à l'étranger*

---------- Partie 1: ----------

3. Comment réagissez-vous si une conversation dans votre entreprise se déroule dans une langue que vous ne comprenez pas entièrement? **(plusieurs réponses OK)**

	a. Faire profil bas↓
	b. Quitter les lieux
	c. Demander une traduction
	d. Engager la conversation malgré les difficultés en langues étrangère

4. Que faites-vous quand vous vous rendez compte que vous parlez dans une langue que vos collègues trouvent difficile à comprendre? **(plusieurs réponses OK)**

	a. Vous continuez à parler dans la même langue
	b. Vous vous adresser à chacun en fonction de la langue qu'il comprenne
	c. Vous alterner l'usage des langues (code-switch) suivant le sujet abordé
	d. Vous continuez à parler dans la même langue et attendre à ce qu'on traduise
	e. Vous passez à une langue comprise par tout le monde, bien que vous ne la maîtrisez pas bien
	f. Vous passez à une langue qui est comprise par la majorité

5. *Laquelle des langues suivantes est/sont utilisée(s) dans les réunions suivantes?* ***(plusieurs réponses OK)***

	arabe	anglais	chinois	français
a. Briefer l'équipe de travail				
b. *Meetings* l'équipe de travail				
c. *Meetings* du personnel de gestion				
d. Meetings élargie de la companie				
e. Meetings avec le *company-man*				
f. Meetings avec les employés d'une autre multinationale				

5. Dans l'entreprise, quelle(s) langue(s) utilisée(s) dans les cas suivants? **(plusieurs réponses OK)**

	5. arabe	**6.** anglais	**7.** chinois	**8.** français
a. Programmes de l'ordinateur				
b. Logiciel d'écrans de contrôle en milieu de travail				
c. Étiquettes de matériel de travail (équipement, outils,...)				
d. Documents (rapports, contrats, CVs, etc.)				
e. Panneau d'affichage				
f. Reloute (Cafétéria/ pause café)				

6. Qui utilise quelle langue? **(plusieurs réponses OK; si AUTRE, nommez la/les langue(s))**

	D'employé à employé	*Foreman* à *foreman*	Employé à *forman*	*Foreman* à employé	*Foreman* à *company man*	chantier à l'administration de la base
arabe						
anglaise						
chinois						
français						

7.Quelles sont les langues utilisées par votre entreprise pour la communication? ***(plusieurs réponses OK)***

	Communication interne			Communication externe (partenaires sociaux, fournisseurs, autres professionnels, autres entreprises, etc.)		
	Communication écrite	Communication orale		Communication écrite	Communication orale	
	En ligne	Face-à-face	En ligne ou par téléphone	Online	Face-à-face	En ligne ou par téléphone
arabe						
anglais						
chinois						
français						

---------- Partie 2: ----------

Pour obtenir des réponses plus précises, veuillez lire les options fournies pour chaque élément dans le tableau; puis cochez (□) la réponse correspondante (1-<u>fortement d'accord</u>; 2-<u>d'accord</u> ; 3-<u>en désaccord</u> ; ou 4- <u>fortement en désaccord</u>) pour chaque option.		**<u>fortement d</u>accord**	**D'accord**	**En désacod**	**<u>fortement</u> en désaccord**
I. L es employés de différentes origines rencontrent des problèmes de communication dans l'entreprise (au travail)					
J. Des employés d'origines différentes parlant des langues différentes	forment des ghettos linguistiques				
	forment des ghettos linguistiques				
	éprouvent des sentiments d'injustice linguistique				
	manifestent des attitudes méprisantes à l'égard des locuteurs d'une langue donnée				
K. Les conflits linguistiques affectent la conduite du travail en termes de progrès et de productivité					
L. Les problèmes de communication sur le lieu de travail peuvent être résolus	par le recrutement de multilingues				
	par le recrutement de traducteurs				
	en imposant l'anglais comme langue commune				
	en dispensant une formation dans la (les) langue(s) pratiquée(s) par le poste de foreman				
	en dispensant une formation sur la (les) langue(s) des employées				
M. Pour la performance globale de l'entreprise, l'utilisation des langues sur le lieu de travail est utile					
N. Sur le lieu de travail, la connaissance des langues est importante					

O. Vous utilisez plus d'une langue au sein de l'entreprise	en raison de la réglementation de l'entreprise				
	parce que les personnes avec lesquelles vous adressez, parlent des langues différentes				
	parce que c'est une pratique courante dans les multinationales				
	parce que vous souhaitez pratiquer et améliorer vos compétences linguistiques				
	parce que vous pouvez communiquer vos idées plus efficacement à vos collègues de cette manière				
	car elle facilite la communication avec des personnes de différentes origines				
	pour montrer vos compétences et briser la pratique quotidienne routinière de travail				
P. La language fréquemment utilisé tous les jours par les employés sur le lieu de travail est	l'arabe				
	l'anglais				
	le chinois				
	le français				
Q. Les langues que vous préférez utiliser pour la communication quotidienne sur le lieu de travail sont	l'arabe				
	l'anglais				
	le chinois				
	le français				
R. Au travail, vous préférez garder plus de contact avec	les multilingues				
	les arabophones				
	les anglophones				
	les locuteurs chinois				
	les francophones				

S. Les multinationales, y compris celle dans laquelle vous travaillez actuellement, embauchent des traducteurs					
T. Dans les multinationales, les promotions et l'attribution de postes de travail sont déterminées uniquement par l'expérience de travail					
U. Les personnes qui sont plus appropriés pour de meilleurs postes de travail et pour la productivité de l'entreprise sont	les multilingues				
	les arabophones				
	les anglophones				
	les locuteurs chinois				
	les francophones				
V. Multinationals hire employees based on	en fonction de la compétence linguistique uniquement, indépendamment de leur expérience de travail				
	en fonction de l'expérience de travail uniquement, indépendamment de leur compétence linguistique				
	en fonction de la maîtrise des langues ainsi que de leur expérience de travail				
W. La présence de plusieurs langues sur le lieu de travail est	avantageuse et gratifiante				
	désavantageuse et entrave la communication				

---------- Partie 3: ----------

1. Veuillez écrire ici toute autre(s)langue(s), éventuellement utilisées, non mentionnées dans les tableaux:

   _____

   _____

2. Que recommandez-vous pour surmonter les difficultés de communication qui pourraient être causées par l'utilisation de plusieurs langues dans votre multinationale?

   _____

   _____

   _____

3. S'il ya autre chose non incluse sur les tableaux ci-dessus et vous pensez qu'il est important d'ajouter, ou vous êtes priés de fournir des recommandations. S'il vous plaît utiliser l'espace libre ci-dessous.

   _____

   _____

   _____

   _____

   _____

VOTRE COOPÉRATION EST HAUTEMENT APPRÉCIÉ

استـبـيان بـاللغة الـعــربـيـــة :Appendix 3

عزيزي المشارك،

تم إعداد هذا الإستبيان من أجل مشروع البحث لما بعد التدرج خاصتي، وتدور محاوره حول التنوع اللغوي داخل الشركات المتعددة الجنسيات المشتغلة في الجزائر. ستكون إجاباتك الصادقة والعفوية محل شكر و تقدير لأنها ستساعد في فهم علاقة ترابط وتأثير تواجد عدة لغات في أماكن العمل متعددة الجنسيات و على اليد العاملة الشاغلة فيها. سيتم التعامل مع أجوبتك و البيانات المجمعة كافة بسرية تامة، دون ذكر أي تفاصيل أخرى عن المشاركين في ملأ هذه الإستمارة.

Abderrazak BEDDIAF (razak.beddiaf@hotmail.fr)

الصورة الديموغرافية للمشارك

*الجنس: ذكر ☐ أنثى ☐ *العمر:..... سنة *الجنسية:*..... *الخبرة المهنية: ..... سنة

*اللغة/اللغات الأم:..... *المنصب الحالي: .....

*اللغات التي تتحدثها:..... * إسم الشركة: .....

-كيف إكتسبت اللغات التي تتحدث بها (يمكنك إختيار أكثر من إجابة واحدة):

☐ التعليم الرسمي (مدرسة عمومية/ جامعة) ☐ تعليم غير رسمي (مدرسة خاصة)

☐ تدريب لغوي مقدم من طرف الشركة ☐ تعليم ذاتي

☐ خبرة عمل سابقة في شركة أو شركات أخرى ☐ خبرة مهنية في الخارج

الجزء الأول:

1. كيف تتصرف إذا تم الخوض في محادثة في شركتك بلغة لا تفهمها تماما (لا بأس باختيار عدة إجابات)؟

أ. تتظاهر بالفهم و تتوارى عن الأنظار	☐
ب. تغادر المكان	☐
ت. تطلب شرح أو ترجمة محتوى المحادثة	☐
ث. تشارك في المحادثة بالرغم من أنك لا تتقن اللغة جيدا	☐

2. ماذا تفعل عندما تدرك أنك تتحدث بلغة يجد زملائك صعوبة في فهمها (لا بأس باختيار عدة إجابات)؟

أ. تواصل التحدث بتلك اللغة	
ب. تعالج الأمر قيد الإهتمام مع الشخص المعني باللغة التي يفهمها	
ت. تتناوب بين اللغات وفقا للموضوع المتناول	
ث. تواصل التحدث بنفس اللغة ثم تقوم بالترجمة أو تطلب من شخص ما أن يترجم ما قلته	
ج. تنتقل إلى لغة أخرى يفهمها الجميع رغم أنك لا تتقنها جيدا	
ح. تنتقل إلى لغة مفهومة من قبل الأغلبية	

3. أي من اللغات التالية تُستخدم في الإجتماعات الآتية (لا بأس باختيار عدة إجابات)؟

	1.العربية	**2.**الانجليزية	**3.**الصينية	**4.**الفرنسية
أ. الإجتماعات المصغرة لفريق العمل				
ب. إجتماعات فريق العمل في حقل النفط اليومية والدورية				
ت. إجتماعات فريق الصيانة و التسيير				
ث. اجتماعات الشركة الموسعة				
ج. إجتماعات مع المسؤول مبعوث شركة سوناطراك (man company)				
ح. إجتماعات مع موظفي شركة متعددة الجنسيات أخرى				

4. في الشركة، ما هي اللغة /اللغات المستخدمة في الحالات التالية (لا بأس باختيار عدة إجابات):

	1.العربية	**2.**الإنجليزية	**3.**الصينية	**4.**الفرنسية
أ. برامج الحاسوب				
ب. برامج شاشات التحكم في مكان العمل				
ت. مسميات معدات العمل (عتاد، أدوات ...الخ)				
ث. الملفات (تقارير،عقود، ملفات السيرة الذاتية... الخ)				
ج. شاشة/لوحة العرض (الإعلانات،...)				
ح. النادي والمطعم (كافيتيريا، استراحة الغداء/ العشاء)				

5. من يستخدم اللغة/اللغات التالية ومع من؟ (لا بأس باختيار عدة إجابات)

	1.العربية	**2.**الإنجليزية	**3.**الصينية	**4.**الفرنسية
أ. عامل مع عامل				
ب. رئيس عمال مع رئيس عمال				
ت. عامل مع رئيس العمال				
ث. رئيس العمال مع عامل				
ج. رئيس العمال مع المسؤول مبعوث شركة سوناطراك (company man)				
ح. موظفو حقل النفط مع الإدارة المركزية				

6. أي من اللغات التالية تستخدمها شركتك للتواصل؟ (لا بأس باختيار عدة إجابات)

	I. التواصل الداخلي			**II. التواصل الخارجي** (شركاء اجتماعيون، موردون، ممارسو الأعمال و شركات أخرى)		
	1. التواصل الكتابي	**2.** التواصل الشفوي		**1.** التواصل الكتابي	**2.** التواصل الشفوي	
	أ. عبر الانترنت	**أ.** وجها لوجه	**ب.** عبر الانترنت أو الهاتف	أ. عبر الانترنت	**أ.** وجها لوجه	**ب.** عبر الانترنت أو الهاتف
1. العربية						
2. الانجليزية						
3. الصينية						
4. الفرنسية						

- - - -

الجزء الثاني :

من أجل إجابات أكثر دقة، يرجى قراءة كل الخيارات المدرجة لكل عنصر في الجدول؛ ثم علم (✓) الإجابة المناسبة لكل خيار (1- أوافق بشدة، 2- أوافق، 3- أعارض، 4- أعارض بشدة)

		1-أوافق بشدة	2-أوافق	3-أعارض	4-أعارض بشدة
أ1. يواجه الموظفون من أصول مختلفة مشاكل في التواصل داخل الشركة (أثناء العمل)					
ب1. يشعر الموظفون من أصول مختلفة والذين يتحدثون لغات مختلفة **بعدم الأمان اللغوي**					
ب2. يشكل الموظفون من أصول مختلفة والذين يتحدثون لغات مختلفة **مجموعات الأقلية اللغوية**					
ب3. يشعر الموظفون من أصول مختلفة والذين يتحدثون لغات مختلفة **بالظلم اللغوي**					
ب4. يبدي الموظفون من أصول مختلفة والذين يتحدثون لغات مختلفة **مواقف ازدراء تجاه متكلمي لغة ما**					
ت. تؤثر النزاعات اللغوية على العمل من حيث التقدم و الإنتاجية					
ث. يمكن حل مشاكل التواصل بشكل أفضل من خلال	1.**توظيف أشخاص متعددي اللغات**				
	2.**توظيف مترجمين**				
	3.**فرض اللغة الانجليزية كلغة مشتركة**				
	4.**توفير تدريب في لغة/ لغات رؤساء العمال**				
	5.**توفير تدريب في لغة/ لغات العمال**				
ج. بالنسبة للأداء العام للشركة، فإن إستخدام اللغات في مكان العمل مفيد					
ح. تعتبر معرفة اللغات في مكان العمل ذات أهمية أساسية					
خ. أنت تستخدم أكثر من لغة واحدة داخل الشركة	1.**بسبب قوانين الشركة**				
	2.**لأن الأشخاص الذين تتحدث معهم يتحدثون لغات مختلفة**				
	3.**لأنها ممارسة متّبعة في الشركات المتعددة الجنسيات**				
	4.**لأنك تريد ممارسة و تحسين مهاراتك اللغوية أكثر**				
	5.**لأنه يمكنك بذلك توصيل أفكارك بفعالية أكثر إلى**				

	زملائك في العمل				
	6. **لأن ذلك يسهل التواصل مع أفراد من أصول مختلفة**				
	7. **لإظهار كفاءتك و كسر روتين ممارسة العمل اليومي**				
د. يتم إستخدام اللغات التالية كثيرا وبشكل يومي من طرف الموظفين في مكان العمل	1. **اللغة العربية**				
	2. **اللغة الإنجليزية**				
	3. **اللغة الصينية**				
	4. **اللغة الفرنسية**				
ذ. اللغات التي تفضل أنت إستخدامها للتواصل اليومي في مكان العمل	1. **اللغة العربية**				
	2. **اللغة الإنجليزية**				
	3. **اللغة الصينية**				
	4. **اللغة الفرنسية**				
ر. في العمل، أنت تفضل التواصل أكثر مع من يتحدثون	**1. عِـدّة لغات**				
	2. اللغة العربية				
	3. اللغة الإنجليزية				
	4. اللغة الصينية				
	5. اللغة الفرنسية				
ز. تقوم الشركات المتعددة الجنسيات، بما في ذلك الشركة التي تعمل فيها حاليا، بتعيين مترجمين					
ص. في الشركات المتعددة الجنسيات، يتم تحديد الترقيات وتخصيص وظائف العمل إعتمادا على الخبرة المهنية فقط					
ض. العمال الأنسب لشغل أفضل الوظائف و للإنتاجية في الشركة هم الذين يتحدثون	**1. عدة لغات**				
	2. اللغة العربية				
	3. اللغة الانجليزية				
	4. اللغة الصينية				
	5. اللغة الفرنسية				

ط. تستأجر الشركات المتعددة الجنسيات الموظفين على أساس	**1. الكفاءة في اللغات فقط، بغض النظر عن الخبرة المهنية**					
	2. الخبرة المهنية فقط، بغض النظر عن الكفاءة في اللغات					
	3. الكفاءة في اللغات و الخبرة المهنية معا					
ظ. يعتبر تواجد عدة لغات في مكان العمل شيئا	**1. مفيدا و مثمرا**					
	2. غير مؤات و معيقا للاتصال					

---------- الجزء الثالث ----------

1. يرجى كتابة أي لغة/ لغات أخرى يجري استعمالها في الشركة –إن وجدت– غير تلك المذكورة في الجداول أعلاه :

_____

2. ما الذي تنصح به للتغلب على صعوبات التواصل –إن وجدت– الناجمة عن استخدام لغات متعددة في شركتكم؟

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3. إذا كان هناك أي شي أخر غير مدرج في الجداول في الأعلى و تعتقد انه من المهم إضافته، أو إذا كنت ترغب في تقديم أي توصيات أو إقتراحات، يرجى استخدام المساحة أدناه

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لكم منا جزيل الشكر على تعاونكم

Appendix 4 : Outline of the Interview Guidelines

1. Introducing the researcher and the research theme
2. Asking for a background about the participant:

   Could you please briefly talk to me about yourself (who you are? Where are you from? How old are you? What is your mother tongue? How many languages do you speak? What are they? What company do you work for? What kind of work you do? What is your position? How many years of work experience do you have in multinational companies?)

   How did you learn the languages you speak? (Did you acquire them via education?)

3. How do you evaluate your degree of proficiency in these languages? Which ones you feel more comfortable to speak?
4. Tell me about your company: How is work structured? How is it conducted? How positions are organized?
5. How do you feel about speakers of several languages in general? Arabophones? Anglophones? Sinophones? Francophones? Speakers of other languages?
6. Can you tell me about how employees communicate in your company? The languages used? How they are used? How often?
7. When do you use your native language at work? How often? With whom? Why?
8. When do you use other languages? Why? How often? With whom?
9. Are there situations in which you are obliged to use one language or another? Because some colleagues do not understand other languages? Because of your company rules?
10. Do you face difficulties to communicate with people from other cultures? Did you run into miscommunications due to lack of understanding of others' cultures? Can you tell me how?
11. Did you happen to notice any of your colleagues finding it hard to communicate with others due cultural differences?

12. Does the company you work for provide language training programs? If yes, for whom? Are you interested in that? Are other employees in the company interested?
13. Is using several languages at work good or bad for employees? For work? For the company? Explain how? Can you give some examples?
14. How do you react to an employee who speaks in a language you do not understand well?
15. Does presence of several languages cause communication difficulties at work? Does this affect work performance and business productivity? How? Can you give some examples?
16. Is language diversity encouraged or discouraged by your company? How?
17. Do employees like or dislike language diversity at work? Why?
18. What are the challenges facing multinational companies and their employees when several languages are used?
19. Do you think that languages are used in an effective way in your company? How would you treat linguistic diversity if you were given the chance to change something in the company policy? What would you do to improve communication if you were the decision maker in your company?
20. Tell me the last time you had a misunderstanding with a team member? What was the issue/cause?
21. How often do you notice employees speaking different languages misunderstand each other? What do you think is the cause of the misunderstanding (linguistic/cultural?)?
22. Have you worked in other companies before working for this one? If yes, what are the main differences you noticed concerning communication and the languages used for interaction between employees? Were there any rules indicating which language(s) to use?
23. Possibility to discuss other issues
24. Closing the interview

« Bearings of Language Diversity on Multinationals Operating in Algeria »

Abstract : The present thesis is an investigation of the uses of linguistic diversity in multinationals operating in Algeria. It explores the outcomes of language diversification within global business sectors in order to gauge its value at the different levels of workplace production processes, by applying an economically-based paradigm in relation to the presence of a variety of languages. The linguistic diversity was examined in respect of how it may affect workplace routines from communicative occasions and patterns in terms of their flow to informing work performance. By applying a mixed method research, including both quantitative and qualitative approaches, data has been elicited from participants belonging to four international corporations operating in the south of Algeria, using questionnaire forms and a semi-structured interview. The results obtained reveal a set of paramount findings. First, in the Algerian business context, linguistic diversity is an undeniable attribute in multinationals, with an increasing ratio of appreciation which is an effect of the increasingly globalized business. Second, in the contexts investigated, language diversity is a significant feature. Though with distinguishable degrees of frequency, five main languages are being used: Arabic and English, along with Chinese and French, as well as some Berber, with the latter at a peripheral level in especially informal spoken discourse. Third, there is an unprecedented employment of English and Arabic in the national delegate company, English and Chinese with Arabic in the Chinese, and English, French and Arabic in the French-based company. Indeed, English is at the center of the linguistic trajectory, embodying a *business lingua franca*. Lastly, overall, multilingualism in international business workplace involves an economic impact. Global business connotes a range of linguacultural aspects which on the surface may imply divergence but, at their core, yield a diversity of insights enriching the work context with the advantages of diversified international business know-how assets. In other words, globalized multilingual business is economically rewarding.

Keywords: *Algeria, human capital, linguistic diversity, language economics, multinational business*

« Apports de la diversité linguistique auprès des multinationales opérant en Algérie»

Résumé : Dans la présente étude nous effectuerons une enquête dans le but de statuer sur les usages de la diversité linguistique auprès des multinationales opérant en Algérie. Elle explore l'apport des langues dans les secteurs commerciaux mondiaux ; ce qui permettra de mesurer leur valeur aux différents niveaux des processus de production sur le lieu de travail, et cela, en appliquant un paradigme basé sur l'économie en relation avec le multilinguisme. En effet, la diversité linguistique a été examinée au égard à la façon dont elle peut affecter les pratiques linguistiques routinières en milieu du travail, ainsi que des situations et des modèles de communication en termes de flux d'information au sein de la compagnie. En appliquant une méthode de recherche à caractère mixte, comprenant à la fois des approches quantitatives et qualitatives, des données ont été récoltées auprès des participants appartenant à quatre sociétés internationales implantées dans le sud de l'Algérie à l'aide de questionnaires et d'un entretien semi-structuré. Les résultats obtenus révèlent un ensemble de constatations hautement significatives. Premièrement, dans le contexte commercial algérien, la diversité linguistique est un attribut indéniable dans les multinationales, avec un taux d'appréciation croissant et ayant un effet économique de plus en plus mondialisé. Deuxièmement, dans les contextes étudiés, la pluralité linguistique est une caractéristique essentielle. Bien qu'à des degrés de fréquence distincts, cinq langues particulières sont principalement utilisées : l'arabe, l'anglais, le chinois, et le français, ainsi qu'une présence de la langue berbère. Ce dernier relevant d'un niveau périphérique, donc plus informel. Troisièmement, il y a un usage particulièrement remarquable de l'anglais et de l'arabe dans l'entreprise nationale algérienne, de l'anglais et du chinois avec l'arabe dans l'entreprise chinoise, et de l'anglais, du français et de l'arabe dans l'entreprise française. En effet, l'anglais est au centre de la donne linguistique, incarnant une lingua franca dans le monde des affaires. Enfin, d'une manière globale, sur le lieu de travail des firmes internationales, le multilinguisme a un impact économique certain. Le commerce mondial implique une palette d'aspects linguistiques qui, à première vue, peuvent impliquer des divergences, mais qui, à la base, donnent lieu à une diversité conceptuelle enrichissant le contexte professionnel avec des atouts diversifiés en matière de savoir-faire commercial noyé dans un contexte international. En d'autres termes, une entreprise multilingue mondialisée est économiquement rentable.

Mots clés: Algérie, capital humain, diversité linguistique, économie des langues, entreprise multinationale

"مساهمة التنوع اللغوي في الشركات متعددة الجنسيات العاملة في الجزائر"

الملخص: يهتم البحث الحالي بدراسة التعدد اللغوي في الشركات المتعددة الجنسيات العاملة في الجزائر. وبناءا على ذلك فإن لب الدراسة يكمن في تحري نماذج وحصيلة التنويع اللغوي داخل قطاعات الأعمال ذات الطابع العالمي من وجهة نظر اقتصادية؛ وذلك لاستقصاء قيمة هذا التنويع على المستويات المختلفة لعمليات الإنتاج في مكان العمل. وقد تم تناول التنوع اللغوي من باب كيفية تأثيره على روتين مكان العمل باعتبار الجوانب التفاعلية وكذا السيناريوهات والأنماط التواصلية المختلفة من حيث تدفقها للتحكم في أداء العمل. تبنت الدراسة منهج بحثي هجين والذي يدمج بين المقاربتين الكمية والنوعية، وتم تجميع البيانات عن طريق الاستبيانات وكذا المقابلة شبه المنتظمة؛ وتمثلت عينات الدراسة في عمال ينتمون إلى شركات متعددة الجنسيات مختلفة تنشط في الجنوب الجزائري. وقد افضت الدراسة الى مجموعة من النتائج الرئيسية. أولاً، يعد التنوع اللغوي في مجال الأعمال ميزة جلية أكيدة ومتنامية الأهمية في الشركات ذات الصبغة الدولية التي تمارس نشاطها في الجزائر، وذلك كنتيجة مباشرة للأعمال التجارية المتزايد العولمة. ثانيًا، يعد التنوع اللغوي في أوساط الشركات عبر الوطنية المدروسة سمة بارزة وبالغة الأهمية، حيث ان هناك استخدام خمس لغات أساسية بدرجات متفاوتة الوتيرة وهي: العربية والإنجليزية، بمعية الصينية والفرنسية، وكذلك بعض الأمازيغية (الشاوية)، رغم ان هذه الأخيرة تتجلى بتواتر محتشم، والتي تقتصر على الخطاب المنطوق غير الرسمي بشكل خاص. ثالثًا، هناك توظيف غير مسبوق للغتين الإنجليزية والعربية في الشركة الوطنية، واللغات الإنجليزية والصينية والعربية في الشركة الصينية، والإنجليزية والفرنسية والعربية في الشركة الفرنسية؛ هذا ويتجلى أن اللغة الإنجليزية تقع في قلب المسار اللغوي بإعتبارها لغة الأعمال السائدة. أخيرًا، تنطوي التعددية اللغوية في أماكن العمل ذات الطابع الدولي بشكل عام على تأثير اقتصادي. تتميز مشاريع الأعمال ذات الطابع العالمي بمجموعة من الجوانب اللغوية الثقافية والتي قد تنم ضمنًا عن الاختلاف في ظاهرها، إلا أنها في جوهرها تتضمن مجموعة متنوعة من الرؤى التي تثري سياق العمل بمزايا شتى لاسيما منها أصول المعرفة الجيدة بالأعمال التجارية الدولية المتنوعة. بعبارة أخرى، من وجهة نظر اقتصادية فإن التعدد اللغوي له أبعاد ذات عائدات معتبرة للشركات ذات الطابع العالمي والتي تتبنى منهج توسيع مشاريعها ضمن نطاق العالمية.

الكلمات المفتاحية: *الجزائر، رأس المال البشري، التعدد اللغوي، اقتصاديات اللغة، الأعمال التجارية الدولية*