



Journal Homepage: - www.journalijar.com
**INTERNATIONAL JOURNAL OF
 ADVANCED RESEARCH (IJAR)**

Article DOI: 10.21474/IJAR01/5409
 DOI URL: <http://dx.doi.org/10.21474/IJAR01/5409>



RESEARCH ARTICLE

NATIONAL IDENTIFICATION SYSTEM IN THE COUNTRIES AROUND THE GLOBE: AN OUTSIDE REVIEW FROM ETHIOPIAN PERSPECTIVE.

Dr. Gavendra Singh¹, Mr Ashenafi Chalchissa² and Mulugeta Kejela³.

1. Assistant Professor, Deptt. of Software Engineering, College of Computing and Informatics, Haramaya University, 138, Dire Dawa, Ethiopia.
2. HOD ,Deptt. of Software Engineering, College of Computing and Informatics, Haramaya University, 138, Dire Dawa, Ethiopia.
3. Deptt. of Software Engineering, College of Computing and Informatics, Haramaya University, 138, Dire Dawa, Ethiopia.

Manuscript Info

Manuscript History

Received: 12 July 2017
 Final Accepted: 14 August 2017
 Published: September 2017

Key words:-

e-ID, e-Government, Capitals, System, Identification, internet, face-to-face transaction

Abstract

A **national identification number** or **national identity number** is used by the governments of many countries as a means of tracking their citizens, permanent residents, and temporary residents for the purposes of various e-governmentally-related functions.

The ways in which such a system is implemented vary among countries, but in most cases citizens are issued an identification number upon reaching legal age, or when they are born. Identification is routinely used to help facilitate commercial and government transactions [1]. Such as taking out a loan or applying for government benefits. While individuals can use traditional forms of identification in face-to-face transactions, these forms of identification are less useful for conducting business on the Internet.

Individuals can use a National Identification System to authenticate to online services, securely communicate online, purchase goods and services, and create legally-binding electronic signatures, such as to sign a contract. The number associated with the identity of the individuals will help in different government and private institutes to uniquely identify the stakeholders of their business and services.

Copy Right, IJAR, 2017., All rights reserved.

Introduction:-

Many countries issued such numbers for a singular purpose, but over time, they become a *de facto* national identification number. For example, the United States developed its Social Security number system as a means of organizing disbursing of Social Security benefits.

In countries where there is no established nationwide number, authorities need to create their own number for each person, though there is a risk of mismatching people.

In case of Ethiopia, it is one of the biggest countries in Africa in the category of population. With this fast growing population and change in age distribution in the population, keeping the documents of the people becomes a

Corresponding Author:- Gavendra Singh.

Address:- Assistant Professor, Deptt. of Software Engineering, College of Computing and Informatics, Haramaya University, 138, Dire Dawa, Ethiopia.

huge challenge. Social, Economic and political activities of the Ethiopian government can be determined by this National identification number. Thus, it is not questionable that the government has to document the necessary information about its people. The way in which the government does this determines the efficiency and effectiveness of all government activities and decisions. This is very important in ensuring public wellbeing and security.

The population of voting age in a sense refers to those people who are capable of receiving an identity card from their local kebele. In Ethiopia this age is reached at 18.

The core idea in electronic citizen's registration and identification system is to associate a single random and unique identification number, you can relate this number to American Social Security Number, that can be used to identify individuals while keeping several information about the individuals in a secure and distributed database. The use of pen and paper in identity documentation and to identify users and track and identify criminals is cumbersome and there a greater risk of data loss involved. As compared to manual, paper-based registers, advanced electronic capture and storage of data are able to reduce costs and human error as well as increase administrative efficiency [2] (World Bank, 2014).

A Brief History of and origin of Identity Card System:-

Origins Of Contemporary Id Systems:-

Napoleon:-

The Napoleonic identity card was the main ancestor of all modern ID systems. Its main purpose was to hold down wages, by stopping workers moving around to find better jobs and higher wages. Napoleon transformed the free society of the French Republic into the Empire, a tightly controlled police state. In France, a free market and mobility of labour were driving up wages. [3]

In response, the French authorities criminalised industrial action and introduced an ID card for workers, which aimed to do two things:-

1. Make it impossible to change jobs without an employer's permission and
2. Restrict movement, by requiring workers to get an impossible string of visas to move legally.

In 1803, Napoleon's police chief reinstated the livret or worker's passbook, used by the Old Regime, updated with new identity features. To get a job, workers had to give the employer their livret ID card. To take a new job, workers had to get their card back, but this required getting their employer's permission to leave. This is a similar situation to human trafficking and slavery in Russia, Eastern Europe or Kuwait today, where gangs control workers by holding their passports.

Napoleon's ID scheme failed to be completely successful for two reasons: –

Firstly, there was a labour shortage, due to the war, which made employers willing to take on workers without a card;

Secondly, the workers had self-help groups, such as the *compagnonnages*, who helped their fellows find lodgings and employment. They helped each other get round the system.[4]

Nazi Germany:-

By the 20th Century, Germany had become one of the most democratic, tolerant and liberal nations in Europe, with welfare, social insurance and a national health service.

“By establishing a people's registration (*Volkskartei* – ID card) we will achieve complete supervision of the entire German people” Herman Göring, 938, quoted in *The Nazi Census*

“German Jewry did not understand how, but the Reich seemed to be all-knowing as it identified and encircled them... Indeed it was clear to world that the Reich always knew the names even if no one quite understood how it knew the names.” IBM and the Holocaust.

The murderous Nazi people's register was hugely important in the evolution of ID schemes. It played an integral part not only in the genocide but in identifying and suppressing political opponents.

Registration started first with employment, regulating workers. The Nazis were obsessed with the economic value of workers, with keeping down pay, eliminating strikers, weaklings and those unable to work.

The Nazis created a Work Book, which in turn created files recording the entire course of each person's life, including periods of unemployment and so-called breaches of work contracts, aiming to identify not only strikers, but also people who took too many days sick leave, changed their job to get better pay, or showed 'disloyalty' to their trained career, by working at something different. All of these traits were classified as 'anti-social' behaviour. There was a planned 'final solution' for Aryans, based on social behaviour, aimed at the sick, weak and 'work-shy' and also the sexually promiscuous, "clandestine prostitutes" and the 'sub proletariat'. This was only abandoned in 1941-42 as the war turned against Germany.

Murdering middle-class Jews produced an income for the Reich, from their assets, whereas murdering the underclass did not [5].

There was extensive cooperation and technical support from IBM, providing the computing systems without which the whole project would have failed [6].

China:-

Mao's China implemented Napoleon's two restrictions: – preventing workers from changing jobs without permission and preventing them from moving location. China operated two systems, one for each function.

Mao expanded the identity workbook into a system called the **Dang-an or dossier**, and compiled lifetime personal files, from school. Employees could not start a new job without their **Dang-an dossier** being released by their former employer, hence without permission. (This new system should not be confused with an earlier historical system, also called Dang-an, which only monitored nobles.)

The dossier made the employer and workplace the focus of state data-gathering, with the employer also gathering information about the worker's views and attitudes.

A separate residential registration system also existed – so-called **household registration** which prevented Chinese workers from moving to a different area, without permission.

The Dang-an system started to break down in the 1990's due to forces produced by globalisation. Foreign firms entering China did not keep Dang-an records and also employed workers without Dang-an dossiers. Large-scale migration from rural areas was required, to provide a labour force for new urban industries. It was decided to encourage illegal, rather than legal, migration. The rural migrants were employed without Dang-an dossiers, either illegally or as so-called 'part-time' workers, exempt from Dang-an files[7].

Modern era:-

World War II initiated the contemporary era of ID cards. In 1938, lawmakers in the United Kingdom passed the National Registry Act, which mandated that all residents possess identity cards. The German government also instituted an ID system that year (although these cards contained information about residents' religion for discriminatory purposes). In 1940, the Vichy government in France instituted an ID system as well, as in Greece and Poland. These systems largely endure to this day, except in the United Kingdom, where courts repealed mandatory IDs in 1952. Analysts have noted that civil law countries are more likely to maintain ID statutes than common law countries (such as the UK). With only a handful of exceptions, no common law country in the world has accepted a peacetime identification system. [8]

In the decades following WWII, ID card adoption was rapid in Asia, as newly independent governments sought to expand state authority. The Hong Kong government introduced an identity card in 1949 to strengthen its sovereignty and quell immigration from mainland China. Taiwan also introduced ID cards in 1949 for similar reasons, and, in the 1960s, South Korea and Singapore followed suit in the context of economic transformation

The Present Day Scenario – National Identificationsystem Worldwide:-

African Continent:-

The Gambia:-

In The Gambia, the National Identification Number (NIN) consists of 11 digits in the form DDMMYY-PG- ##CS. DD MM YY indicates date of birth, PG indicates place of issuance and nationality, ## is a serial number and also indicates sex and CS is a check sum.

Nigeria:-

The Nigerian National Identification Number (NIN) is issued and managed by National Identity Management Commission (NIMC), and it's a set of eleven digits (e.g.: XXXXXXXXXXXXX), assigned to 16+ years old Nigerians and legal residents by the Government [9].

South Africa:-

In the Republic of South Africa every citizen must apply for an Identity Document from the age of 16 years. The ID number is already allocated at the time the birth certificate is generated and required for child passport applications.



South African identity document

Zimbabwe:-

The national ID registration in Zimbabwe is managed by the Registrar General's Office. The National ID number is an eleven character alphanumeric code in which the 2 digit prefix denotes the district in which the applicant resides or registered for the national document. The next six digits denote the unique personal code for the applicant and check letters then the last 2 digits denote the district of origin usually from the paternal side, this would be the prefix code on the parent's national ID number

American Continent:-**Argentina:-**

In Argentina the only nationally issued identification is the DNI, *Documento Nacional de Identidad* (National Identity Document). It is a number not related to anything in particular about the person (except for immigrants who get assigned numbers starting at 92,000,000). It is assigned at birth by the Registro Nacional de las Personas (National Registry for People), but parents need to sign up their children, and because of this there are some people, especially the poor, who do not have a DNI.

The ID is required for applying for credit, opening a bank account, and for voting. Law requires a person to show his or her DNI when using a credit card. Prior to the DNI the LC (Libreta Cívica, for women), and LE (Libreta de Enrolamiento, for men) were used. This was later unified in the DNI.

Brazil:-

In Brazil there are two systems. The first, the *Registro Geral* (RG) is a number associated to the official ID card. Although the ID cards are supposedly national, the RG numbers are assigned by the states and a few other organizations, such as the armed forces. So, not only is it possible for a person to have the same RG number as a person from other state (which is usually dealt with by specifying the state which issued the ID card), but it is also possible to (legally) have more than one RG, from different states[10].

The other system, the *Cadastro de Pessoas Físicas* (CPF) is federal and supposedly unique (barring fraud), but it was created originally for purposes of taxation (a related system is used for companies, which is called *Cadastro Nacional de Pessoas Jurídicas* - CNPJ). One, the other or both numbers are required for many common tasks in Brazil, such as opening a bank account or getting a driver's license. The RG system is more widespread, but its shortcomings have led to debate about merging both systems into a new one, which would be based around the CPF.

Canada:-

The use of the **Social Insurance Number** (SIN) as a "de facto" ID number ended in 2004 with passage of The Personal Information Protection and Electronic Documents Act. here are only certain instances where an organization may ask for a SIN (namely for tax or retirement benefit related issues). The SIN must be guarded as confidential personal information, and therefore cannot be used as a general ID number. Nevertheless, the SIN is

still used as a unique identifier for the Canada Revenue Agency to track individuals who are filing their income tax returns [11].

Colombia:-

In Colombia, each person is issued a basic ID card during childhood (*Tarjeta de Identidad*). The ID number includes the date of birth and a short serial number. Upon reaching the age of 18, every citizen is reissued a citizenship card (*Cédula de Ciudadanía*), and the ID number on it is used and required in all instances, public and private.

Mexico:-

In Mexico, the ID number is called the CURP (Clave Única de Registro de Población) although the most important and accepted ID card would be the election card ("credencial de elector" or else "credencial del INE," as per the initials of "Instituto Nacional Electoral/National Institute of Elections, the institution responsible for electoral procedures). There are, however, other important ID numbers in Mexico: for instance, the social security number, which is the number assigned by Instituto Mexicano del Seguro Social (Mexican Institute of Social Security, or IMSS) to every citizen who starts working, or the RFC (Registro Federal del Contribuyente) which is assigned by the Treasury and has the same format as the CURP but a shorter length.

United States:-

In the United States, a Selective Service Number must be applied for by all male citizens turning age 18. An optional national identity number is the Social Security number (SSN), a nine-digit number issued to U.S. citizens, permanent residents, and temporary (working) residents. Its purpose was to identify individuals for the purposes of Social Security, but it is now also used to track individuals for taxation purposes. There is no legal requirement to have a SSN if it is not required for Social Security or taxation purposes, but in practice one is required for many other purposes, for example to open a bank account or apply for a driving license, so that nearly all U.S. citizens and permanent residents have one. The SSN has therefore become a *de facto* national identification number.[12]

ASIA:-

India:-

As World's biggest Biometric ID Programme,^[12] the Indian Government on 28 January 2009, established an Authority called the Unique Identification Authority of India (UIDAI) to issue a *Unique Identification Number* to all citizens and residents of India. UIDAI's Aadhaar card project gives each Indian citizen a unique 12 digit identification number, along with recording their biometrics such as iris scan and fingerprints on a UIDAI database and the card is being rolled out to all eligible citizens. The first Aadhaar number was launched in Maharashtra in the village of Tembli, on 29 September 2010[13]. So far up to February 2016, 984 million (98 crores) Aadhaar Numbers have been issued. In October 2015, 93 percent of adult Indians have an Aadhaar card [14].

China:-

In the PRC, an ID card is mandatory for all citizens who are over 16 years old. The ID number has 18 digits and is in the format RRRRRRYYYYMMDDSSSC, which is the sole and exclusive identification code for the holder (an old ID card only has 15 digits in the format RRRRRRYMMDDIII). RRRRRR is a standard code for the administrative division where the holder is born (county or a district of a city), YYYYMMDD is the birth date of the holder, and SSS is a sequential code for distinguishing people with identical birthdates and birthplaces. The sequential code is odd for males and even for females.[15][16][17].

Indonesia:-

In Indonesia, 16 digit number is used as a unique number for each citizens. It is known as **Nomor Induk Kependudukan**. The number is given to all Indonesian citizen.

This program is designed on the basis of UIDAI of India. Though Indonesia started late, Indonesia National ID program is growing at much rapid pace and assumed to complete earlier than India due to smaller population.

Since 2012, the government rolls out e-KTP ("Elektronik Kartu Tanda Penduduk", "Electronic Citizen ID Card") which is an RFID card containing encrypted information of the electronic signature, iris scan, ten-finger fingerprint scan and a high-resolution passport photo.

EUROPE:-**European Economic Area/Switzerland:-**

Within the European Economic Area and Switzerland, a card known as the European Health Insurance Card is issued to any resident who so wishes, proving the right of health care anywhere in the area. This card lists a code called "Identification Number", quite simply the national identification number of the residence country, for Germany the health insurance number.

Finland:-

In Finland, the *Personal Identity Code* (Finnish: **Henkilötunnus** (HETU), Swedish: **Personbeteckning**), also known as *Personal Identification Number*, was introduced in 1964 and it is used for identifying the citizens in government and many corporate and other transactions. It consists of eleven characters of the form DDMMYYCZZZQ, where DDMMYY is the date of birth, C the century sign, ZZZ the individual number and Q the control character (checksum)[18].

France:-

In France, the INSEE code is used as a social insurance number, a national identification number, for taxation purposes, for employment, etc. It was invented under the Vichy regime.

Germany:-

In Germany, there is no national identification number in the full meaning of the term. Until 2007 only decentralized databases were kept by social insurance companies, who allocate a social insurance number to almost every person. Since 2008 new Taxpayer Identification Numbers (German: *Steuerliche Identifikationsnummer* or *Steuer-IdNr*) replace the former Tax File Number. Persons who are both employees and self-employed at the same time may receive two taxpayer identification numbers. The corresponding number for organizations, also issued by the tax administration, is named economy identification number (*Wirtschafts-Identifikationsnummer*). These numbering concepts are national systems, organized by the Federal Central Tax Office [19].

Italy:-

In Italy, the *fiscal code* (Italian: **Codicefiscale**) is issued to Italians at birth. It is in the format "SSSNNYYMDDZZZX", where: SSS are the first three consonants in the family name (the first vowel and then an X are used if there are not enough consonants); NNN is the first name, of which the first, third and fourth consonants are used—exceptions are handled as in family names; YY are the last digits of the birth year; M is the letter for the month of birth—letters are used in alphabetical order, but only the letters A to E, H, L, M, P, R to T are used (thus, January is A and October is R); DD is the day of the month of birth—in order to differentiate between genders, 40 is added to the day of birth for women (thus a woman born on May 3 has ...E43...); ZZZZ is an area code specific to the municipality where the person was born—country-wide codes are used for foreign countries; X is a parity character as calculated by adding together characters in the even and odd positions[20].

Benefits of Using the National Identification Number:-

The benefits of a national identity card depend upon various technical and organizational factors. These include the information used to establish identity and the authenticity of data. If an ID card system is formed with biometric information and real-time monitoring, it can also serve as a surveillance and authorization system (Chander, et. al. p.298). National Identity card also serves as the distinguishing feature for the general population from illegal residents. This is also a security benefit and it highly depends on the quality of data input into the system. Beside that several other benefits based on the study are listed below:

Immigration Control:-

An obvious argument for national identification cards is that it will help border agents and other federal officers more quickly determine the immigration status of individuals. If one is unable to produce a valid card, it could mean that the person did not enter the country legally. The card would include information about the person, such as height, weight and eye colour, and other aspects to make it harder to forge[21].

Easier Identification:-

Today, many retailers ask for photo identification when making purchases with a credit or debit card. While many people use a driver's license, a national ID card will also let those without driver's licenses prove their identity more easily and without hassle. This easier form of identification can also be used in airports and other facilities that

require a form of state-issued identification. An easier form of identification can also reduce the wait time at airports.

Feasibility:-

In many countries, it is not feasible to implement a program that would issue national identification cards to its citizens, permanent residents and legal immigrants. In order to be able to distribute the national identification cards, staff would need to be trained and maintained. It would also be difficult to ensure that the majority of the population would register for a national identification card. Some, such as the homeless, might have trouble proving their identities in order to receive a card because of a lack of Social Security numbers or birth certificates.

Security:-

Identity theft, fraud, and fake id are also a big problem in today's growing economy. so to overcome this problem it's a better solution.

Redundancy:-

Because most people already have forms of state-issued identification through driver's licenses, requiring everyone to obtain and carry another national identification card would be redundant. It would also seem silly because the costs that a national identification card would incur greatly outweigh the benefit of having two identification cards. There is no point in having a separate national identity card when the state driver's license system is already in place.

Voting:-

Some citizens might try to vote in elections more than once. Many times, they come up with fictional characters so that a candidate can get additional votes. National ID cards prevent forged identities, according to Oxford Journals.

Drawbacks:-**Possible Invasion of Privacy:-**

National identification cards can be used to track an individual. In order for the national identification card to be usable by the government, a national database containing personal information would have to be created. This database could be considered an invasion of privacy. However, if the government chooses not to create this database, then it will be too easy for individuals to commit fraud by having multiple cards with different identities.

Cost:-

Another main concern with implementing National Identification System is that many citizens are not willing to absorb increased cost in the form of increased taxes. The expenses would be very high to implement such a widespread programme. The technology would be very expensive, specially when considering the amount needed for every citizen and reissue card.

Racial Profiling:-

If religion or ethnicity is registered on mandatory ID documents, this data can enable racial profiling[22].

National identity card System would continue to Expand due to the following reasons and also will be in coming years (in the Twenty Years between 1985 and 2005):-

First, the events of 9/11 renewed debate over ID cards. Despite long-standing opposition to identity cards in the UK, the British government passed the (since repealed) Identity Cards Act in 2006, and the Canadian government considered similar legislation. Although a national ID card system was never pursued in the US, lawmakers passed the REAL ID Act (2005), which created security standards for state identity documents.

Second, European unification intensified the adoption of ID card systems in member states. Indeed, by 2014, most European Union countries were using ID cards, which were intended to facilitate travel and communications in the EU.

Third, ID cards have come to include increasingly sophisticated biometrics, which enhance the security of ID systems. In 1999 South Africa introduced electronic ID cards. In the 2000s, Indonesia and others launched ID systems containing iris and fingerprint information[23][24].

Conclusion:-

This paper is designed to studying different National identificationsystem of various countries to assist in various activities of social, political and economical of the government. The current resident's documentation system in Ethiopia is an old manual pen-and-paper storing of individuals identity based on their current residence kebele. This manual resident's identification has more disadvantages than advantages[25].

Besides holding advantages to the workings of the government, this national identification system is becoming increasingly an integral aspect civic participation and inclusion in several nation of the world. It is quite visible that people need to identify themselves at almost any government or non-government offices in order to receive the services they require. With electronic resident's identification system, the government can have the necessary information about its citizens and citizens can have a formal and proper way of identifying themselves for various social, economic and political errands. The economy of Ethiopia is increasing as compared to other nations of African continent. Overall, National ID card policy depends on each country's institutional specificities, but some trends are common across countries. If National ID card systems are often implemented than Governments would also be benefitted by implement national ID systems for economic transformation and other governmental activities and also give governments the incentive and legitimacy to create identity systems.

References:-

1. http://en.wikipedia.org/wiki/National_identification_number www.//data.un.org
2. Martyn Lyons, Napoleon Bonaparte and the legacy of the French Revolution, London, Macmillan 1994, p. 119 www.globalresearch.ca/id-cards-an-historical-view/15231
3. Gotz Aly and K H Roth, The Nazi Census – Identification and Control in the Third Reich Temple University Press, 2004, p.43.
4. Edwin Black, IBM and the Holocaust, Crown Publishers, 2001, p. 125. https://www.jstor.org/stable/41237503?seq=1#page_scan_tab_contents.
5. Whitley, E.A.,&Hossein, G. (2009). *Global challenges for identity policies*. Palgrave Macmillan.
6. "National Identity Management Commission »About the NIN". www.nimc.gov.ng. Retrieved 2016-10-17. inss.gov.br. Retrieved 2012-07-14.
7. "Social Insurance Number Usage". OnPayroll.ca. 26 August 2011.
8. David T.S. Fraser (1 September 2003). "New rules for using social insurance numbers" (PDF). *McInnes Cooper law firm*.
9. Byatnal, Amruta (29 September 2010). "Tembhli becomes first Aadhaar village in India". *The Hindu*. Retrieved 24 April 2016.
10. Firstpost (30 October 2015). "About 93 percent of adults in India have Aadhaar card, says UIDAI". *Firstpost*. Retrieved 24 April 2016.
11. Victor N. Shaw, Social Control in China: A Study of Chinese Work Units, Praeger Publishers, June 30, 1996, Chapter 6, Control through Confidential Records, p. 82.
12. Elizabeth J Perry from Native Place to Workplace: Labour Origins and Outcomes of China's Danwei System, Chapter 2, in Xiaobo
13. Lu and Elizabeth J. Perry (editors), Danwei: The Changing Chinese Workplace in Historical and Comparative Perspective.<https://web.archive.org/web/20131203001620/http://www.vrk.fi/default.aspx?id=45>.
14. Guidelines for filling out the ESTA application. Retrieved 13 February 2017 (German). Alan G. and Anna D. (2015): Future of Identification and Development www.peopleof.oureverydaylife.com www.researchomatic.com www.hsph.harvard.edu www.legalbeagle.com
15. Tewdros N. (2007): Citizen Identification System: The Case of Ethiopia.
16. Shankar, Besta (27 April 2015). "Aadhaar Becomes World's Biggest Biometric ID Programme". *International Business Times, India Edition*. Retrieved 24 April 2016.