

Original Research Article

An Analysis of the Most Important Influential Components of Globalization on Public Spaces*

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Received: 06/06/2022 ;

accepted: 22/06/2023 ;

available online: 23/08/2023

Abstract

Problem statement: Globalization is an ongoing process whose effects on cities and their micro spaces have not been specified yet. Globalization makes the actions and evolutions in one part of the world affect the other parts. In the contemporary globalized world, where the local (and somehow closed) community has changed to a trans-local, global, or local-global one, many indicators affect our urban life. Therefore, this process is observed with its special dimensions and indicators in the public space arena (both physically and behaviorally).

Research Objective: The present study aims to analyze the most influential components on public spaces and examine how globalization impacts on citizen behavioral patterns in public spaces.

Research method: To answer the above questions, the most important effective dimensions of globalization in public spaces have been specified with a macro, critical view, by using the meta-analysis method. The expert questionnaire and statistical analysis have been used to evaluate the reliability and normal distribution of data (with SPSS version 26). The ranking of the components was done by the Fuzzy Delphi method.

Conclusion: The conclusions show that globalization affects the behavioral patterns of contemporary man indirectly, due to its effect on the most important aspects of life. Information technology has catalyzed this by changing the spiritual frontiers in the resultant of three behavioral aspects (necessary, social, and optional) and has made inevitable effects on both two qualitative dimensions of urban space. Virtual communication is the continuous flow of information, values, and according to their effect on public spaces. Therefore, technology development and its subsequent information and communication revolution have had the most effect on urban public spaces during globalization. This in turn clarifies considering the mentioned indicators while designing public spaces in a globalized world.

Keywords: *Process, Globalization, Public spaces, Meta-analysis.*

*This article extracted from Ph.D. thesis of “Zahra Foroutan” entitled “The impact of globalization process on the behavioral patterns of citizens in urban spaces” that under supervision of Dr. “Manouchehr Tabibian”

which has been done at Qazvin Islamic Azad University, Faculty of Architecture and Urban Development, Qazvin, Iran in 2023.

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Introduction

In recent decades, the “Globalization” concept has made changes in the political-economic, and social-cultural structures all over the world. The emergence of this new concept has resulted in new environments and turn, great changes in human view of the “environment”. Here, what we encounter daily – and the high speed of changes in the globalization era – is the certain effect of this process, with its special dimensions and components on public spaces. Globalization has affected contemporary man and has changed his different aspects of presence in public spaces. The emphasis of this research is to answer the “Which components and dimensions of globalization have mostly affected the public spaces?” and “How has this affected the behavioral patterns in public spaces?”

On the other hand, we know that the fluid process of globalization has had diverse effects on different parts of the world (and even different cities and countries). The cities with higher ranks in the global hierarchy are affected directly by cultural tendencies and architectural styles, while cities with lower ranks follow the tendencies of higher ranks and are affected indirectly (Banerjee & Loukaitou Sideris, 1992, 125). Specifying the other components of these changes in the globalized world needs a more detailed study. The result of this study helps appropriate designing for public spaces in the globalized world.

Research Background

The influence of globalization on cities is not a new subject, but there are limited comprehensive researches regarding which dimensions of globalization have the most effects on urban public spaces.

Olds (1995) in basic research, examines the complex and increasing processes of globalization that underpin the production of contemporary urban mega projects (UMPS) in cities located at the pacific ocean margin. By examining the key dimensions of globalization processes (development and

restructuring of the international financial system; globalization of property markets; the evolving role of transnational companies; expansion of social communications, social global networks, and knowledge-based societies (including the overseas Chinese); and travel and networking, three UMPs have been chosen – in Vancouver (pacific place), Yokohama (Minato Mirai 21) and Shanghai (Lujiazui Central Area, Pudong) – and examined for their complex globalization processes and global-local dialectic. The article considers international links and the global context which have influenced the creation of these new urban spaces – spaces which most of them have been designed with extraordinary costs to be the symbol of a global “Utopia” for the twenty-first century.

Mandeli (2019) shows that public spaces in Jaddah city have completely changed in recent decades and these changes reflect the more widespread changes in Arabian society. The common dissatisfaction with contemporary spaces in Jaddah is accompanied by deficiencies in planning, designing, and modern management. These factors have changed the socio-local fabric and traditional street culture annihilated the local sense, created useless urban spaces, and raised main questions about how these spaces answer the needs and desires of people.

Jaako Imppola (2019) considers the important role of the economy in the globalized world and articulates that the globalized economy has changed the contemporary world-both positively and negatively. Changes have a great influence on daily lives which practically affect everything, including public spaces. It is necessary to understand the role of the economy, monetary systems, and financial markets since they constitute the operational context of the global world. To specify the important components which affect the inner city spaces change during the globalization era,

Ghahremani, Bajestani, McCarthy & Jalalianhosseini (2021) examined the urban evolutions in four global cities (Istanbul, Shanghai, Singapore, and Tokyo). The result presented 9 basic

components for changing urban spaces and 37 key strategies including: understanding the environment and social stability; emphasis on art, culture, and local assets; international cooperation with modern technologies (construction, information, and communication); privatization of property markets; the concept of the cosmopolitan common realm; planning for leisure time activities and urban tourism; economic experience and consumerism encouragement; service-based economy and knowledge-based industries. The interaction between the mentioned factors and preconditions of each city (such as competitiveness capability and contextual issues) provides a lens through which urban space changes can be understood.

This research tries to examine the most important globalization effects on public spaces and their activities by specifying the globalization process, its dimensions, and qualities on the one hand and re-defining public spaces in the new era on the other hand.

Theoretical Foundations

• Globalization process

The new world has exited of being closed, having geography and being indigenous and its national and transnational components have widespread interactions. The globalization process has influenced all human activity domains including society, production, knowledge, security, peace, etc. Moreover, it has changed human thought manners and their perception of social relations. After these social changes, deep and important effects have occurred on different aspects of human everyday life. It seems as though we are in a transition; an era in which countries are required to change their situation on the international stage, or a transition that may lead to the emergence of different patterns (despite the development level of countries). This point of view may even mean that globalization – in an increasingly “globalized” world – is disjoining from the traditional model and building a new one. Globalization was not recognized as an important

term in academic circles until the beginning or even the middle of the 1980s. It was in the second half of the 1980s that this concept became popular and from then has been considered and studied by researchers as a scientific discussion (Robertson, 1996, 8).

Experts in different fields have different definitions of this subject during these times. During the 20th century, which is known as “the Era of Responsibility”, globalization was spread to protect peace, stability, and democracy after the Second World War (Kubina, Šulyová & Vodák, 2021).. Nowadays, globalization has become an inevitable issue in all aspects of modern man’s life and as a metaphor, reflects the complexity of the world we live in (Amin & Thrift, 1994).

To sum up, globalization can be defined as the movement of lifestyles, policies, discipline, ideologies, goods, and people through a globalized space (Karra, 2019). Some of the definitions, of globalization, are presented in the following table (Table 1).

Research Findings

Table 1 shows that globalization has a direct relation to the concepts of time, place, and consciousness. As a set of required operations and phases for reaching a certain goal (process), it has made physical boundaries movements and has changed the concept of time and place in public opinion. These great changes have sometimes been imposed consciously and sometimes unknowingly on societies.

Globalization has set forth a kind of living for the contemporary man in which there is a wide, deep, high-speed inner global linkage in all aspects of life (financial, economic, cultural, and environmental). However, globalization has not led to the end of nation-states as political units and it is possible that lead to global convergence in economies and cultures. Although globalization does not affect economic, social, political, and cultural domains, it cannot be considered an inevitable or linear process.

• Globalization and public spaces

The term “public space” defines “ the space for

Table 1. Globalization Definitions. Source: Authors.

Definitions	Name/year
Globalization is the compression of time and space	Harvey (1990)
- Globalization refers to the compression of the world and intensification of world consciousness. It is a process resulting in global interdependence and awareness of the world as an integrated whole. -Globalization is the “consciousness of the world as a whole”. According to Robertson, this phenomenon has a cultural essence, but its quality is so that it cannot stay apart from socio-economic processes.	Robertson (1992) (1993)
They define globalization in the framework of social, economic, and cultural flows and explain globalization effects at the local level with more considerations than economic processes.	Lash and Urry (1995)
The globalization process is inevitable and the compression of time and space and geographic boundaries fading, results in the world’s social and economic convergence.	Internationalist and Extreme Approach
This group believes that globalization is a new qualitative phenomenon amid the 1970s which has made changes in the power relations between national and transnational levels.	Transformationalists Approach
-It is the process of value and technology spread and their influence on society’s social life. -Communication expansion at the global level, social organization at the global realm, and global community integration and solidarity.	Albero (1997)
Globalization is the intensification of worldwide social communications that links distant localities and eliminates intervals in social relations.	Giddens (2001)
Globalization is the elimination of political and physical boundaries for the free flow of capital, individuals, information, and culture between nations.	Banerjee et al. (2003)
He describes globalization as a historical phenomenon and articulates the evolution of this concept from the 16 th century and the formation of the global economy between city centers of that era (including Athens and Beijing). In his definition the outstanding qualities of globalization come after 1989; The emergence of the global village and the combination of national and local identities with cosmopolitan identity.	Short (2006)
The brand new globalization wave indicates the 21 st -century situation which is known as “globalization4” or “the age of revolution”.	Annual meeting of World Economic Forum (2019)
Globalization is the process of unification that enters activities, countries, and resources into a complex system.	Kubina et al. (2021)

gathering” which is an element of the wider concept of “social space”. Most of the streets (including pedestrian ways) are considered public spaces. City squares, parks and public buildings (which are open to the public; e.g. public libraries) are examples of public spaces (Maher Mafoz, 2019, 48). Generally, oppositely of private space which may have limitations, every individual has the right to access and use public space. The main quality of public spaces is that they express social life, urban culture, and daily subjects and affect them positively (Worpole, 1992). The new urban agenda, approved in Habitat III in Tokyo (Oct. 2016) has confirmed public spaces as urban development elements and considers them “the motives of social and economic development” ((Mehaffy, Elmlund, Farrell, 2019). Jessop and Sam (2000) argue that there are great changes in people’s lifestyles (especially in cities) due to globalization. So, there are strong relations between globalization patterns and cities in terms of structure, style, plans, or development (Karra, 2019).

The reason is that changes in lifestyle, culture, tastes, and priorities due to globalization, tend to influence the design and development of cities. Meanwhile, providing public spaces should go beyond functionalism and aesthetics concerns. Instead, those kinds of spaces which endorse the centrality of urban preventive schemes for promoting urban quality should be created (Mandeli, 2019). Public spaces in addition to being objective (the space body, provided services, and accessibility) and subjective (urban life flow, continuity during generations, and interaction between individuals), have another quality. Public space is the output of space possession by users and their activities. Space possession is different from occupying since individuals in public spaces constitute human units with the same common space experience (Mansouri, 2015). The emphasis of this research is on open public spaces. The main hypothesis is that this important space _ which defines the character and value of the city – in the contemporary world in which the

globalization process, changes the boundaries and promotes open spaces design and management ideas, should be accurately updated. A kind of updating that is inviting and meets the global man's needs. Meanwhile, new communication technologies (such as virtual spaces) have greatly influenced open public spaces. This influence has been on behavioral patterns as well and there is no doubt that the contemporary citizen, acts differently in these spaces (compared with his ancestors). This hypothesis is based on the change in modern man's lifestyle. The important recent evolutions which are considered in this research (and the research dimensions and components are measured in that context) are subjects such as digital and information revolutions, communication technology, virtualization, privatization, and network economy. Compared with previous urban eras, talking about revolutionary urban changes is quite different now. Here we talk about globalization and multicultural cities; internationalization and cosmopolitanism; a plurality of identities and thoughts; cities with electronic fabric against physical ones. Where, as Castells (1996) says, "Information technology has released the activities from environmental constraint."

According to some scholars, urbanism and building urban objective spaces have been annihilated since the emergence of the virtual world (Koolhaas, 1995). From another point of view, mass digital technology cannot meet even a bit of urban objectives and physical space needs (Grossman, 1995). Generally, information and communication technology has always influenced the space and there are different opinions about their effect on cities. As an example, the widespread use of the telephone in a phase had a direct effect on city cores development. Another phase was one of the important factors of suburban migration. Centralization of remote advanced information and communication technology facilities has made most of the global cities to become the global cities affluent. There is already an increasing inter-urban competition in the world's big cities to become the center of information and

communication networks and remote international communication. At the micro level, we observe changes in people's understanding and use of home privacy. Macroeconomy and political transformation are related to post-industrial society or information-based society expansion. Somewhere between these two levels, we observe changes in using and designing public spaces, pedestrian paths, stores, and supermarkets (Zuidas, 2008, 42).

If urban spaces facilitated daily communications, sociability, and trade in the pre-industrial era, and as the main element, would let each city has its character (Mandeli, 2019), in the global era the essence of urban public spaces has changed. Three main trends in urban space evolution are (1) fragmentation of urban fabric and demolition of public spaces (2) public space privatization and (3) revitalization of these spaces (Madanipour, 2019). According to Jacobs (1961), the industrial revolution in Western cities has changed the shape of old cities, the nature of the social environment, people's experience of the public domain, and all their life aspects. This trend made the cities bigger, with a mass heterogeneous population, and demolished their traditional socio-spatial fabric (Mandeli, 2019). After the second world war, the need to become compatible with traffic and imposing zoning limitations made deep differences in urban space which led to a fragmented urban fabric and change in the public domain (Gehl & Svarre, 2013). As a result, public spaces and their character changed, because they were not acting as social interaction facilities and were used merely for capital objects. Therefore, these spaces lost their historical role as places where people could show up and socialize (Hall, 2002). The second factor that changed the open public space's character was the weakness of local management together with the limited legal and financial power to cope with the increasing population and expansion of cities. This in turn deprived public spaces of having a unit, polarized civic function (which increases disinterest in public life aspects) (Carmona, 2010). The financial crisis in the middle of the 1970s, the income decrease of local and national

authorities, and urban planning policies failure (such as spurt, uncontrolled evolutions, and decrease in public service quality) have helped the privatization of public institutions. All of these, in turn, caused accessible open spaces to change to exclusive, controlled ones (Kirby & Glavac, 2012). According to Freedman (2002), most urban spaces are potential resources for investment and economic benefits. Believing that public spaces can add enormous value to the experience and potential of urban regions, city officials have emphasized producing new high-quality versions of global publicity images, which make their cities competitive (Mandeli, 2019). Therefore, all forms of public spaces have witnessed a renaissance.

• Public spaces and behavioural patterns in the age of globalization

Tibbalds (2003) believes that urban spaces affect users through two dimensions: social and physical. Therefore, they can be interpreted as social spaces which represent the amount of people's social interactions. People's different behaviors in urban spaces are due to different factors in these spaces. These factors influence the manner of space users directly (or indirectly). Behavioral patterns in space are affected directly by different factors including social and physical qualities (popular culture for using urban space), geographic qualities, etc. On the other hand, globalization has had enormous effects on society, economy, and culture. So it can be concluded that globalization will affect the behavioral patterns of contemporary man, due to its indirect effects on the most important aspects of life-while information and communication technologies have intensively influenced the range of this effect. People's behavior in public spaces is divided into 3 groups: compulsory (necessary) activities, optional activities, and social activities (Gehl & Svarre, 2013). Necessary activities which occur regardless of the environment quality, have least been influenced by the physical environment and public space. So, if a public space has low quality, people will do only necessary activities and where there is a high-

quality space, there is more tendency to be present and stay in the environment. Optional activities are not vital and occur in situations where the desirable context is provided (such as leisure activities). Social activities depend on the presence of other individuals in the space and can be done only collectively (like children's playing, and meetings...).

The environment does have its effects: whether behaviors be leisurely or purposeful (Bahrainy & Khosravi, 2015), or whether the space be used only as a passage or encourages people to be present there (Whyte, 1980). More important, it influences behavior to be avoided or spontaneous (Reeve, 2005). The importance of this categorization is mostly for the effect of different styles on mental health. Avoidance behaviors are done to resolve environmental deficiencies, tensions, weaknesses, and stresses the result is just relief (Daci & Ryan, 2000). Spontaneous behaviors are not based on environmental requirements. They are done autonomously and due to an individual's inner desires which eventually lead to mental health (Azimi Seghin, Hasani Ashourzade & Montajab, 2018).

Now this question arises: how has globalization affected behavioral patterns? The question can be answered from 2 aspects. The first aspect is to consider the first qualities of space. The second aspect is paying attention to the secondary qualities of space. The first quality means that people use the urban space somewhat (even a bit). So, the first aspect means the condition of people coming to the space. But secondary qualities are the condition of staying in space. This question cannot be answered regardless of the technological revolution which is one of the important qualities of the globalized world. It seems that the profound flourishing of information technology and displacement of mental boundaries between countries have been so powerful that they had inevitable effects on the overall results of three behavioral dimensions (mentioned above) and two quality aspects of urban spaces. For example, communication technologies have grown to such an extent that many citizens meet their needs by them;

they need to earn money, do shopping, come to notice, and socialize with others.

Research Framework

This research, revolving around 3 important subjects – globalization, public spaces, and behavioral patterns – examines the most important changes and evolutions in recent decades due to the development of information and communication technologies. Here, globalization is the independent variable, behavioral patterns are the dependent variable and public spaces are the mediator variables, and the relation of these factors has been analyzed in critical view. The results indicate that globalization – as a phenomenon that has gone beyond geographical boundaries and has influenced all aspects of an individual's life all over the world – has economic, social, political, and cultural dimensions. The economic dimension (as the root of globalization) has occurred due to the will and intention of states. Moving toward free trade and market, technology changes, increase in competition and local and international efficiency, and increase in sources for investment are the effects of this dimension. In a sense, economic globalization has reduced national sovereignty control over the national economy.

The social dimension of globalization indicates the globalization effect on an individual's life and work, family, and communities. In the era of policy globalization, we cannot talk about national sovereignty, national boundaries, and national security. Globalization of policy promotes democracy, political culture, and civil attitudes. The most important effects of cultural dimension can be summarized as more choice opportunities, diversity of values and tastes, worldwide cultural convergence, and homogeneity. This dimension, while making cultural divergence at the national level, leads to a kind of relativity, coexistence, and competition. The mentioned aspects will be evaluated in the context of the information and communication age because ICT has been the prime-mover globalization trend. Globalization accelerated technology change which

in turn has increased the speed of the globalization trend. Meanwhile, IT has been a catalyst for global integration and incorporation. The other issue is behavioral patterns. Since humans and the environment have close and inevitable relations, the behavior should be defined in the environmental context. On the other side, people are the product of the social environment as well as the result of their physical environment. Human behavioral patterns in the environmental context (known as urban public spaces) are divided into necessary, optional, and social activities. Social activities in the format of social interactions (active or semi-active) are affected by different factors including physical, environmental, cultural, and political components. The two other groups of these activities include physical, environmental, cultural, and political components too. The mentioned issues are presented in the research framework diagram (Fig. 1).

Research Method

According to Blaikie (2016), this research is descriptive – explanatory and Neuman (2019) defines it as being descriptive meaning that the most important issues regarding globalization, its dimensions, and components, articulated by urban experts and professionals have been collected. In this phase, the qualitative meta-analysis method is mainly considered. Following this method, the available opinions and views were analyzed quantitatively. This research attempted to show the scattered literature regarding the globalization dimension in public spaces in a coherent, integrated pattern by proposing a new question. For analyzing the collected data, they were supposed to be proportionately fitted inside the presented issues (globalization dimensions, urban public spaces). These dimensions were considered as predefined codes in the research and the data were analyzed on this basis.

To answer the first question of the research, the most important available literature on the relationship between “public spaces and globalization” was

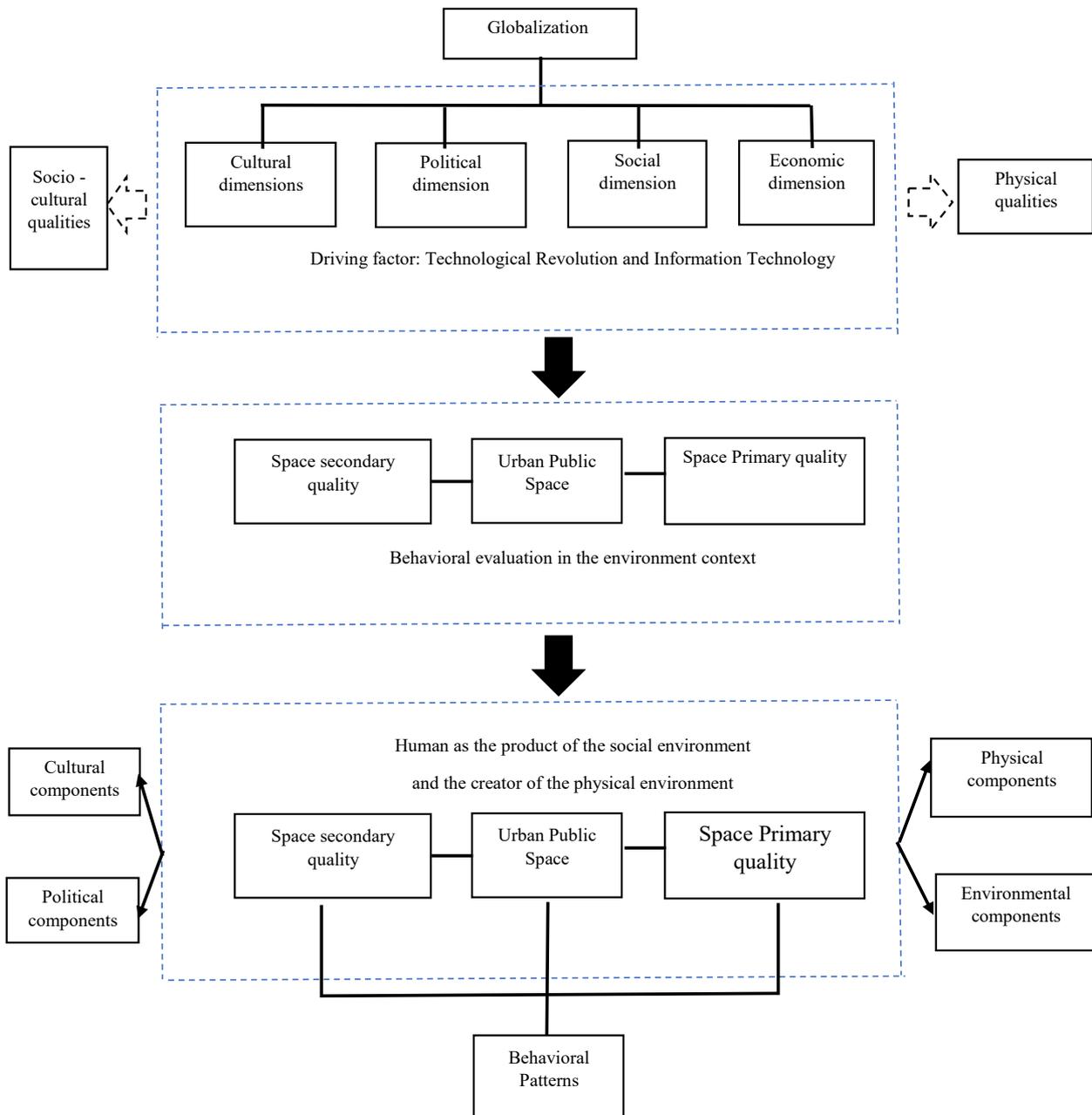


Fig. 1. The Research Theoretical framework. Source: Authors.

reviewed. This was done by analyzing the articles collected from the most related scientific literature network (Science Direct / Elsevier) and domestic credible scientific publications. Then, the most important dimensions of globalization in these sources were ranked. To do this, the related keywords in the mentioned scientific database were searched and the most related articles to each of the 2 mentioned words (and their derivatives) were chosen. Finally, according to the research subject

(public spaces), 23 related articles were analyzed by quantitative content analysis or meta-analysis method.

The seven-step method of Sandlowski and Barroso (2007) was used for quantitative meta-analysis and the main method for collecting data was desk research. For information extraction, the information was assorted in a table. In Sandlowski and Barroso's method, this table contains the following information. Research ID information (title, author's

name, family name, year of publication), research key information (method and object of research), main findings information (research findings and conclusions) (the mentioned table could be provided if needed).

In the qualitative findings analysis phase, the resultant codes from the meta-synthesis process were determined. This was done by considering one code for each factor, extracted from the related sources to the problem. Then, these codes were classified according to the sources that were extracted from and their frequency. The Critical Appraisal Skills Program (CASP) was used for quality control. The procedure is that by using the CASP method, each article (qualitatively) was evaluated by 10 qualitative criteria. Each article was given a score (from 1 to 5) according to each criterion. The articles with a total score of 25 and more were verified qualitatively and the rest were eliminated. The considered criteria for the CASP method in this research were as follows: appropriateness of the article and research objects; the research article being up to date; the article proposal; sampling method of the article; data collection method and its quality; reflexivity extent of generalizing the results and findings of the article; the extent of common moralism in editing sources; the extent of accuracy in data analyzing; clarity of expression in presenting the findings; the overall value of the examined article (the mentioned table could be provided if needed).

Table 2 shows that 56.52% of the research articles are written between 2015 – 2020. This indicates that globalization and its effects on cities and public spaces is a new subject and has gradually attracted

the attention of many experts, especially during the last decades.

Table 3 shows that most of the studies have been done in Chinese cities (140, 28%) and the geographic distribution of the published articles (in the field of research) shows a gap in the related literature in the Middle East countries (especially Iran). The meta-synthesis results indicate that economic, social, political, and cultural issues, consist the most important dimensions of public spaces. It can be described that economic globalization, the financial and economic process at national level are no more subject to internal mechanism and government decision-making. Therefore, the national sovereignty control on national economy has lost its meaning increasingly (Zaki, Hosseini Naserabadi, 2014). The social dimension of globalization includes culture and identity, solidarity of families and communities. Globalization is generally related to issues such as family, religion, work and education (Jafari Samimi & Sina, 2018). Political globalization promotes democracy, develops political culture and civic attitudes (Gholami, 2012). In a globalized culture continuous flow of ideas, information, commitments, values and tastes are transferred by individuals using mass media and electronic simulation (water, 1995, 124-126). This kind of globalization describes the pervasive and increasing effect of Western consumerism, which is spread by new entertainments and media; in a way that people in each locality, show similar tastes, lifestyles, and tendencies (Zaki & Hosseini Naserabadi, 2014). Fig 2 shows the ranking of globalization dimensions in past research which relate to cities. In this research,

Table 2. The date of publication examined. Source: Authors.

Frequency percentage	Frequency of sources	Article's year of issue
4.35	1	Before 2000
8.69	2	2005 - 2000
8.69	2	2010 – 2005
21.74	5	2015 – 2010
56.52	13	2020 – 2015
100	23	Total

Table 3. Spatial scale of reviewed sources. Source: Authors.

Percentage of frequency	Sources frequency	Article's Spatial scale
9.52	2	Canada - Vancouver
4.76	1	Singapore
4.76	1	Denmark
4.76	1	America
4.76	1	Japan – Yokohama
14.28	3	China – Shanghai
		Urban regions of Guangdong – Hongkong – Macao Bay Area
4.76	1	Dubai
4.76	1	Poland
4.76	1	Vietnam
4.76	1	Hongkong
9.52	2	Arabia – Jeddah, Taif
		Tagarg, Tabuk and Abha
9.52	2	Nigeria
9.52	2	Iran – Tehran
4.76	1	Philippines
4.76	1	Bangladesh – Dhaka
100	21	Total

the environment subject has been overlooked due to the small-scale essence of the subject. In the next step, according to the results of the literature review, the most important components of the mentioned dimensions have been specified and shown in Fig. 3. In the following, we try to provide a precise and coherent ranking of the effect of globalization dimensions on public spaces. This ranking is done based on the Fuzzy Delphi analysis method. Delphi is a strong technique for extracting ideas and opinions from the collective agreement of expert judgments. So, it is based on group communication. This technique is used when the accessible knowledge is uncertain and imperfect and its object is to reach consensus. Since the experts use their mental ability to present their opinions, there is the possibility of uncertainty. Therefore, that data should be integrated by fuzzy sets and analyzed. Fuzzy theory can change ambiguous concepts to mathematical forms and provide a context for decision-making in uncertain

conditions (Farzi Dayeri, Ghaffarzadeh, Javid & Hosseinzadeh Lotfi, 2021). The reason for using this method in this research is because of the new nature of the research and the limitation of sources regarding globalization and urban public spaces. So, we needed to use expert opinions to get more valid, reliable results. Since the results of group judgments are more reliable (with high – quality) than individuals' judgments, the Delphi method could be a better choice.

In this method, the individuals' interaction, results in stronger consensus and it is more valid than judgments by statistical inferences. In the Fuzzy Delphi method, the experts usually present their opinions in the form of the minimum (least) amount, the highest possible amount, and the maximum amount (Triangular Fuzzy Number). Then the average of their opinions and the amount of each expert's disagreement from the average is calculated. The next step is to send this information to experts

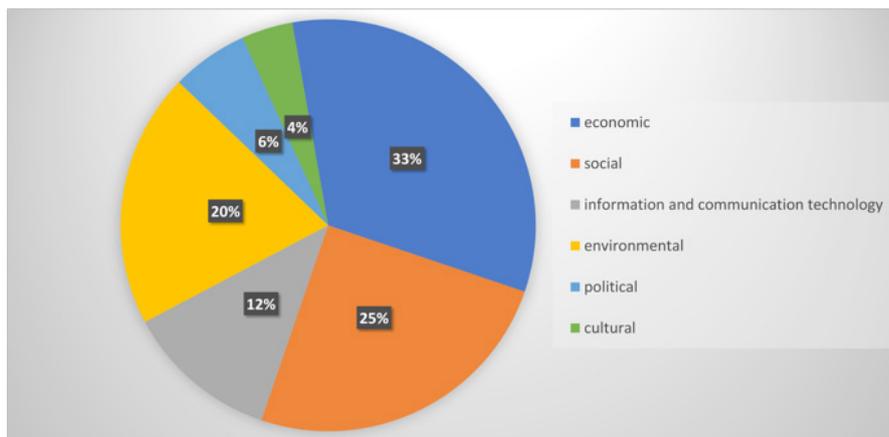


Fig. 2. Frequency of the most important dimensions of public spaces globalization. Source: Authors.

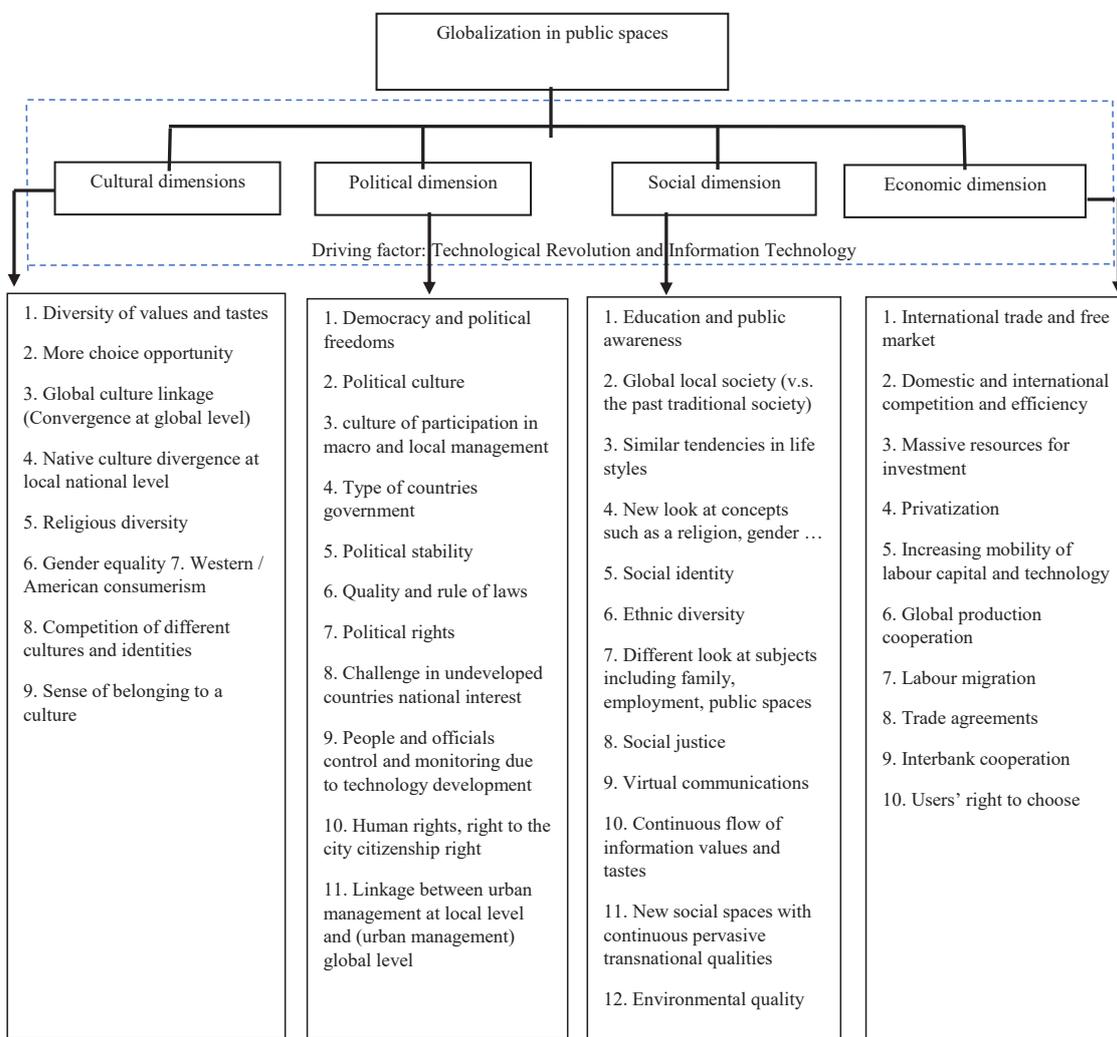


Fig. 3. Important effective dimensions and components of globalization in public spaces. Source: Authors.

for getting new opinions. Each expert – according to the prior information – presents a new opinion or modifies his previous idea. This process continues till the fuzzy average numbers gain enough stability

(Farzi Dayeri, 2021). To avoid the ambiguity of uncertainty in decision-making, the triangle Fuzzy Numbers have been used throughout this research. The fuzzy Delphi technique for screening items can

be used for one round, but for forecasting, it should be done several rounds till reaching a consensus. In the Delphi Fuzzy algorithm for screening, the appropriate fuzzy spectrum fuzzification of verbal expressions of respondents should be developed first (Habibi, Izadiar & Sarafrazi, 2014, 63).

We have used the Fuzzy spectrum of five to do so. To analyze data by the Fuzzy Delphi method, after designing the questionnaire and collecting expert opinions, the Fuzzy value of each question (indicator) was calculated. Then, the obtained fuzzy value for each question was defuzzified (S_j) to make comparison and evaluation possible. In the next step, a threshold limit (r) was used to evaluate the importance of each question. According to this threshold, there are two modes:

If $S_j \geq r$: the question (indicator) is highly important

If $S_j < r$: the question (indicator) is less important (which can be eliminated)

To answer the second research question, critical analysis, using the results of the literature review in quantitative meta-analysis method has been used.

Findings and Discussion

After specifying the components, the Fuzzy Delphi questionnaire (with a five-point Likert scale) was prepared. In back and forth (till verification of all indicators and reaching an acceptable consensus) the following results were obtained: Computation of the questionnaire reliability has been done by calculating Cronbach's alpha in SPSS software (version 26). The questionnaire with 0.94 Cronbach's alpha has an acceptable reliability (more than 0.7) and its validity is approved by the experts. Since the best method for data distribution of the Likert scale and questionnaire is examining the skewness and kurtosis of the data, to examine the normality of research data, the skewness and kurtosis check method (Spss, version 26) has been used. Skewness is a measure of the asymmetry of the probability distribution of a real-valued random variable about its mean and kurtosis shows the length of the distribution. In general, if skewness and kurtosis are between (-1.96, 1.96) there is a

normal distribution. The following function is used to calculate these amounts:

$Z \text{ skewness} = \text{skewness} / (\text{S.E.}) \text{ skewness}$

$Z \text{ kurtosis} = \text{kurtosis} / (\text{S.E.}) \text{ kurtosis}$

The results in the following table (Table 4) show the normal distribution of the questionnaire's data. The Fuzzy Delphi results at the first and second rounds also indicate that questions added to the questionnaire include labor skill, trade agreements, inter-bank corporations, social justice, democracy, political freedom, political culture, participation culture in macro and micro-management, political rights, diversity of values and tastes, more choice opportunities, religious diversity, gender equality (can be provided if needed), have been eliminated due to their amount is less than the threshold. The indicators include a new look at religion, gender, etc and concepts, virtual communications, continuous flow of information, values, and tastes, human rights, urban and citizenship right, the linkage between urban management at the local level and global levels, different cultures and identities competition, as well as a sense of belonging to a culture.

Since no new indicator was introduced after that by experts and there was 70% consensus over most indicators, the experts reached a consensus on almost all questions and the survey stopped at this stage. Eventually, the indicators ranking (Table 5) shows which globalization dimensions have most influenced public spaces.

Conclusion and Suggestion

The effect of the globalization process on all aspects of human life has led to the idea that the increasing role of electronic communication technologies in everyday lives, affects spaces qualities and activities in urban public spaces directly. Intensive use of internet and the related digital technologies have influenced almost all important aspects of urban life including urban public spaces. Therefore, contriving the possible ICT effects from the macro to urban level in recent years has become a turning point for planners, designers, and city managers. From this

Table 4. Indicators with higher and lower defuzzified amounts than the threshold limit. Source: Authors.

Weight	Questions condition	Z skewness	Z kurtosis	Defuzzified amount	Indicator
0.34	Verified	-0.632	-0.212	3.116060546	International trade and free market
0.033	“	-0.242	-0.550	3.007837806	Domestic and international competition and efficiency
0.043	“	0.192	0.134	3.876028259	Massive resources for investment
0.033	“	-0.688	-1.354	3.33674687	Privatization
0.037	“	-0.661	-0.387	3.43084339	Increasing mobility of labor, capital, and technology
0.042	“	0.632	-0.212	3.822827208	Users’ right to choose
0.036	“	0.469	-0.661	3.372671112	Education and public awareness
0.037	“	-0.269	-0.387	3.43084339	Global – local society
0.041	“	0.632	-0.212	3.822837208	Similar tendencies in lifestyles
0.039	“	-0.888	-0.118	3.633702233	A new look at concepts such as religion, gender
0.048	“	1.506	-0.917	4.3884692	Virtual communications
0.038	“	0.161	-0.467	3.489135836	A different look at subjects such as family, employment, public spaces
0.044	“	-0.242	-0.550	4.018902065	The continuous flow of information, values, and tastes
0.037	“	0.661	-0.387	3.439816827	Environmental quality
0.038	“	0.161	-0.467	3.489135836	New social spaces with continuous, pervasive, transnational characters
0.043	“	0.242	-0.550	3.918361179	Type of countries’ government
0.04	“	-1.878	1.238	3.604061449	Political stability
0.034	“	-0.632	-0.212	3.116060546	Quality and rule of laws
0.043	“	-0.132	1.123	3.930782037	People and officials control and monitor due to technological development
0.036	“	1.173	0.927	3.355664315	Human rights, right to the city, and citizenship right
0.034	“	-1.716	0.927	3.163226904	The linkage between urban management at the local level with urban management at the global level
0.041	“	1.135	0.110	3.77113485	Global culture linkage (convergence at the global level)
0.034	“	1.413	1.522	3.55148334	Native culture divergence at the local/ national level
0.037	“	-0.508	-0.955	3.400475667	Competitions among different cultures and identities
0.037	“	-0.371	-1,080	3.437718952	A sense of belonging to a culture
0.037	“	-0.6	-1.092	3.457714946	Western/ American Consumerism

point of view, the expansion of urban technologies into urban public spaces can simultaneously be a good opportunity to be seen in the global arena and a new challenge for discussion and exchange of views.

Items such as privatization increase or giving priority to a special group of society in public spaces, increasing access control through design or using surveillance camera or security guards; urban design without considering indigenous identity and region’s climate; consumerism prevalence and emphasis on leisure time against production and services in the contemporary world; high level of communication

through remote communication technology network; decrease in need of face - to - face interaction; decrease in the importance of proximity for social interactions and the change in concepts such as “distance”, “ place” and “speed”; using the homogenization of users and design qualities at city center’s public domains all over the world; changes in how we think about freedom, tendency to loneliness and giving priority to individuality in all cases and etc. are some items which have deeply influenced our understanding of public spaces, their quality and even the necessity of their existence in a world which

Table 5. The most important effective globalization Dimensions on public spaces (ranking). Source: Authors.

Fuzzy weight	Indicator	Rank
4.3884692	Virtual communications	1
4.018902065	The continuous flow of information, values, and tastes	2
3.930782037	People and officials control and monitor due to technological development	3
3.918361179	Type of countries' government	4
3.876028259	Massive sources of investment	5
3.822827208	Users' right to choose / similar tendencies in lifestyles	6
3.77113485	Global culture linkage (convergence at the global level)	7
3.633702233	A new look at religion, gender ... concepts	8
3.604061449	Political stability	9
3.55148334	Native culture divergence at the local/national level	10
3.489135836	A new look at subjects including family, employment, public spaces / New social spaces with continuous, transnational characters	11
3.457714946	Western / American consumerism	12
3.439816827	Environmental quality	13
3.437718952	Sense of belonging to a culture	14
3.43084339	Increasing mobility of labor, capital, and technology / global-local society	15
3.400475667	Competition between different cultures and identities	16
3.372671112	Education and public awareness	17
3.355664315	Human rights, right to the city, and citizenship right	18
3.163226904	The linkage between urban management at the local level with urban management at the global level	19
3.116060546	Quality and rule of laws international trade and free market	20
3.033674687	Privatization	21
3.007837806	Domestic and international competition and efficiency	22

is experiencing widespread technological revolution (specially in ICT field).

Therefore, the experience of public space is changing and many public functions can be done in malls and secure, safe, semi-private internet spaces. This has different reasons from the beginning of the modern industrial era, including the weakening of public spaces' political facilities, changing public squares into traffic junctions or transition regions, change of public spaces users to passive spectators, and the "speed-up" (which changes our spatial understanding). But generally, it seems that we can make many positive uses of public spaces conditions in the globalization era.

Therefore, to revitalize the local communities in this era, providing high-quality public spaces can be a good suggestion. Now it has been globally approved that a public space with good, attractive, and active operation, can be a turning point in community economic development; whether in a small city or a metropolitan. This is why globalization subject and

its effect on public spaces is a brand new subject and has attracted the attention of scholars over time (especially in recent decades). This research – with a macro to this subject – has evaluated and ranked the most important dimensions and components which affect public spaces. The results show that from 41 examined components, 14 items have been eliminated due to their score being less than the threshold amount. The final results were: virtual communication (rank 1), continuous flow of information, values and tastes (rank 2), and people and officials control and monitoring due to technology development (rank 3). The contemporary globalized world is to a great extent influenced by virtual communication. Public spaces which are the main ground for citizens' communication, have been greatly affected by this kind of communication – even though individuals enter these places with their cell phones and keep virtual communication in an objective public space.

This widespread communication has created a continuous flow of information, values, and tastes and has made individuals' lifestyles and viewpoints (about public spaces) somehow similar. On the other side, the technological revolution has caused an increase in people and officials to control. Now all through a commercial edge of a pedestrian way, in radial spaces of a square, and everywhere in the city, a surveillance camera and electronic eye can be installed – which by the existence of abundant virtual spaces in all building phases until the public space is used, is effective. After the mentioned subjects, the following components come respectively: type of a country's government/ massive resources for investment, consumers' right to choose/ similar tendencies in lifestyles, a new look at religion, gender ... concepts, political stability, native culture divergence at local/ national level, a new look at subjects including family, employment, public spaces/ new social spaces with continuous, pervasive/ transnational characters, western/ American consumerism, environmental quality, sense of belonging to a culture, increasing mobility of labor, capital, and technology global–local society, competition of different cultures and identities, education and public awareness, human rights, right to the city and citizenship right, the linkage between urban management at the local level and global level, quality and rule of laws/ international trade and free market, privatization, domestic and international competition, and efficiency. Therefore, social and economic dimensions have been introduced as the most effective ones in public spaces. On the other hand, the most obvious changes in the contemporary world have occurred due to technological development. The growth of technology depends on economic development and social development depends on both. Now, every individual in any part of the world can experience Paris and New York public places due to virtual communications (although indirectly). The results of this research show that this experience affects public spaces indirectly. In this situation, planners and city officials have no way but

to synchronize with the continuous flow of changes, due to the continuous flow of information, values, and tastes. To provide suggestions for protecting the vitality and invitation of public spaces in the globalization era, paying attention to global standards would be necessary. This, alongside paying attention to local and native capacities and aptitudes, helps the presence of the city and its public spaces in the global competition domain. Therefore, city management and urban design can foreground achieving global standards, with an emphasis on local aptitudes. The design and providence of urban public spaces – so that being independent of gender, socio-economic conditions, and age – and considering the current city socio-cultural contexts, can be examples of these courses of action.

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**HOW TO CITE THIS ARTICLE**

Foroutan, Z. & Tabibian, M. (2023). An Analysis of the Most Important Influential Components of Globalization on Public Spaces. *Bagh-e Nazar*, 20(123), 5-20.

DOI: 10.22034/BAGH.2023.345415.5202

URL: https://www.bagh-sj.com/article_174101.html?lang=en

