The Integration between Transformative Service Research and Agglomeration: A systematic review and a research agenda

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Resumo

We developed a systematic review using bibliometric results and exploratory factor analysis of coupling papers to build a list of factor an a framework to advocate an intersectional research agenda for Transformative Service Research and Agglomeration literature. We show state of the art contrasting Glaeser (2011) work with different points of view, while also developing some definitions to highlight new fieldcore concepts that rise opportunitiesin different disciplines, elucidating the major role of Quality of Life construct. Furthermore, we compiled a table of possible constructs and a nomological network as a framework for future quantitative studies. We conclude with a research agenda for multidisciplinary or cross-disciplinary engagement.

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Abstract

We developed a systematic review using bibliometric results and exploratory factor analysis of coupling papers to build a list of factor an a framework to advocate an intersectionalresearch agenda for Transformative Service Research and Agglomeration literature. We show state of the art contrasting Glaeser (2011) work with different points of view, while also developing some definitions to highlight new fieldcore concepts that rise opportunitiesin different disciplines, elucidating the major role of Quality of Life construct.Furthermore, we compiled a table of possible constructs and a nomological network as a framework for future quantitative studies. We conclude with a research agenda for multidisciplinary or cross-disciplinary engagement.

Keywords: Systematic Review. Transformative services. Agglomeration. Quality of life.

INTRODUCTION

Services are a ubiquitous phenomenon in the world (Ostrom et al., 2010). Parallel to its growth, there are questions about the impact of services on cities, especially on the citizens quality of life (Bitner & Brown, 2008). However, the reverse causal impact is also true: customer's preferences can transform its quality of life (QoL) and the cities through services consumption, with this approach seeing as a complementary point of view for the discussion started with Glaeser (2011) work. In a conjuncture of innovative technologies that can disrupt any limit to the impact of customer services choices, we advocate the development of a new research field that highlights the competitive advantage discussion and connects Agglomeration and Transformative Service literature, starting with and expanding the implications from Glaeser (2011) publication in Science journal.

The notion of researching cities as urban agglomerations can be traditionally foundin areas such as urban studies and economic geography. The present paper advocate that disciplines of management, such as consumer behavior (Teller, 2008), public administration (Arentze, Oppewal, & Timmermans, 2005) and retailing (Park & von Rabenau, 2011) can give more value to other knowledge areas, with the addition of competitive advantage and quality of life as the cornerstones of the new research field advocated.

With the emergence of disruptive technologies, new lenses should examine the transformative impact of customer services choices on agglomeration literature (AGGL) and Transformative Service Research (TSR) (Anderson et al., 2013). The present paper tries to broaden the implications of the qualitative work of Ostrom and colleagues (2010) by introducing a structured bibliometric work, which in turn culminate in a framework for future quantitative endeavors.

The contribution of the present paper to the literature is threefold. First, we discuss a bibliometric work about TSR and AGGL combined with a factorial analysis to discover convergences or divergences in 213 published papers. Second, we develop a holistic framework to ease the researcher's life in diverse areas. Last, we propose a research agenda to change the trends, in particular,influenced by the emergence of disruptive technologies. To our knowledge this is the first study to develop a framework that attempts to draw the associations of TSR and AGGL, especially using QoLas a mechanism that explains the relationshipbetween service strategy and competitive advantage as an argument. In doing so, we contribute to narrow the boundaries of some different areas of knowledge.

Home office technologies, apps for banking and transportation, 3D printing, drones are examples of disruptions that started changing cities dynamics, sometimes weakening or strengthening agglomeration logic. All that we have learned about customer behavior, public administration and retailing is about to change, but the search of organizations competitive advantage will continue in the contemporary capitalist world. The pressures of environmental issues will rise, and technology and customer services choices including socio-cultural amenities are essential parts of the formula (S. Wang & Li, 2017; Wu & Oueslati, 2016; Zhang, Huang, He, & Wu, 2017).

Discussion about well-being and QoL have progressed independently, often in insulated disciplines like corporate social responsibility, sustainability or in more ethical issues related to dysfunctions like fake fair-trade and greenwashing (Bly, Gwozdz, & Reisch, 2015; Low & Davenport, 2007). QoL is a core construct for TSR(Rosenbaum, 2015)and for AGGL (Dalmazzo & Blasio, 2010) literature, but the authors seem to forget its correlation to competitive advantage until the work of Glaeser (2011). The relationship between service strategies, QoL, and competitive advantage are mainsprings for our theoretical bias, created as a discourse embedded in a new research field.

The primary justification for this work is to include both the QoL and the competitive advantage in the current discussions of the TSR and AGGL literature. Thus, a bibliometric study supported by a factorial analysis of the authors coupling is used to analyze possible clusters that demonstrate the commonalities of the TSR and AGGL.

SYSTEMATIC REVIEW

For the purposes of this study, bibliometrics was the method used to conduct this systematic review. This method enables the combination of a great amount of bibliographic data through statistical analyses (Vogel & Guttel, 2013). In this study, we conducted a bibliograhic coupling analysis, a bibliometric technique that measures the frequency with which two documents in a sample have at least one reference in common, as it considers the overlap of their bibliographies (Kessler, 1963; Zupic & Cater, 2015). The bibliographic coupling shifts attention from traditional works to trends in scientific literature, enhancing bibliometric applications(Vogel & Guttel, 2013).

A bibliometric study in the Scopus and Web of Science bases were performed to analyze the insertion of transformative services in the realm of agglomeration, understood as a larger area. The following string was used: (“transformative consumer" OR "quality of life" OR "well-being" OR "Transformative service" OR "Service sustainability") AND ("high street" OR "trade area" OR "agglomeration") within titles, abstracts and keywords criteria.

Table 1 describes the staple information from the sample. It´s important to highlight that there were only included journal articles and conference papers, excluding revisions, workshops, editorials, and tutorials.

Table 1.General description of bibliometric results

Main Information about data			
Articles	213	Authors of single-authored articles	136
Sources (Journals, Books, etc.)	173	Authors of multi-authored articles	455
Journal Keywords	1107	Articles per Author	0.416
Author’s Keywords	600	Authors per Article	2.4
Average citations per article	9.925	Co-Authors per Articles	2.69
Authors	512	Collaboration Index	3.12
Author Appearances	573	Period	1974– 2018

Source: Elaborated by the authors (2018) using the R software.

Detailed data information by year appears in Table 2. In fact, from 1974 until the year 2007, only 59 articles were found on the sample, so the last decade grouped around 72% of the articles in the sample. The year 2018 was removed from Table 2, but it has three published articles. The bibliometrix package (Massimo & Cuccurullo, 2017) utilized by the software R (R core team, 2016) calculates that there is positive annual growth, demonstrating an increasing interest in the topic.

Table 2.Article number annual evolution

Annual Scientific Production											
Year	1974-2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Articles	59	8	8	13	12	11	22	19	16	21	20
Annual Percentage Growth Rate 3.39											

Source: Elaborated by the authors (2018) using the R software.

From a total of 512 authors and co-authors, the five most prolific ones are shown in Table 3, with the last column showing the results according to the fractionalized articles between authors and co-authors, generating a new authors ranking.

Table 3.Most productive authors (who beginners need to read)

Most Productive Authors				
	AUTHORS	ARTICLES	AUTHORS	ARTICLES FRACTIONALIZED
1	LI J	4	LI J	3.50
2	NIJKAMP P	4	GHOLIPOUR HF	2.00
3	BESTA T	3	METAXAS T	2.00
4	CAMAGNI R	3	RAPPAPORT J	2.00
5	GUPTA A	3	WONG C	2.00

Source: Elaborated by the authors (2018) using the R software.

Table 4 gives the most cited first authors countries extracted from the sample, enabling to notice the literature predominance coming from the United States.

Table 4.Most productive Countries

	Most Productive Countries			Total Citations per Country		
	COUNTRY	ARTICLES	FREQ	COUNTRY	CITATIONS	AVG
1	USA	42	0.2295	USA	964	22.95
2	CANADA	11	0.0601	ITALY	208	23.11
3	POLAND	10	0.0546	JAPAN	147	21.00
4	ITALY	9	0.0492	CANADA	87	7.91
5	UK	9	0.0492	FRANCE	84	14.00

Source: Elaborated by the authors (2018) using the R software.

The information in Table 5 demonstrates that all the journals in the extracted sample are connected with Regional Science or Economic Geography. The h5-index is also presented in this table, which is an h-index for articles published within the last five complete years. The h-index is a proper citation metric becauseit evaluates the productivity and the impact of published papers at academic and journal levels(Hirsch, 2005). Also included in Table 5 is the Journal Citation Report (JCR), known as the principal citation impact index(Nerur, Rasheed, & Pandey, 2016).

Table 5.Most Relevant Sources (Where Beginners need to look for new papers)

	Sources	Articles	h5-index (07/2018)	JCR (2018)
1	REGIONAL SCIENCE AND URBAN ECONOMICS	7	37	1.278
2	PAPERS IN REGIONAL SCIENCE	5	26	1.657
3	ANNALS OF REGIONAL SCIENCE	4	24	1.336
4	EUROPEAN PLANNING STUDIES	3	36	1.863
5	JOURNAL OF ECONOMIC GEOGRAPHY	3	43	3.453

Source: Elaborated by the authors (2018) using the R software.

Table 6shows the most referred papers within the extracted sample, being one of the most relevant information acquired through the descriptive bibliometric analysis.

Table 6. Most referred papers (the first task for beginners)

Papers Most Referenced	Total (of 213)
Glaeser, E. L., Kolko, J., &Saiz, A. (2001). Consumer city. *Journal of Economic Geography*, *1*, 27–50.	13
Roback, J. (1982). Wages, Rents, and the Quality of Life. *Journal of Political Economy*, *90*(6), 1257–1278.	13
Blomquist, G. C., Berger, M. C., &Hoehn, J. P. (1988). New Estimates of Quality of Life in Urban Areas. *American Economic Association*, *78*(1), 89–107.	12
Glaeser, E. L., &Maré, D. C. (2001). Cities and Skills. *Journal of Labor Economics*, *19*(2), 316–342.	10
Brueckner, J. K., &Zenou, Y. (1999). Why is central Paris rich and downtown Detroit poor? An amenity-based theory. *European Economic Review*, *43*, 91–107.	8
Ciccone, A., &Hall, R. E. (1996). Productivity and the Density of Economic Activity. *American Economic Association*, *86*(1), 54–70.	6
Gyourko, J., &Tracy, J. (1991). The Structure of Local Public Finance and the Quality of Life. *Journal of Political Economy*, *99*(4), 774–806.	6
Rosenthal, S. S., &Strange, W. C. (2004). Evidence on the nature and sources of agglomeration economies. In *Handbook of Regional and Urban Economics*(Vol. 4, pp. 2119–2171). https://doi.org/10.1016/S0169-7218(04)07049-2	6
Beeson, J., &Bowler, T. (2015). When senior executives stop developing. *Business Horizons*, *58*(3), 253–255. https://doi.org/10.1016/j.bushor.2014.12.003	5
Deller, S. C., Tsai, T.-H. (Sue), Marcouiller, D. W., &English, D. B. K. (2001). The Role of Amenities and Quality of Life In Rural Economic Growth. *Amer. J. Agr. Econ*, *83*(2), 352–365.	5

Source: Elaborated by the authors (2018) using the R software.

Table 7 demonstrates the most used keywords in the leading journals related to this specific research intersection stream.

Table 7.Most Relevant Keywords (how to search for information)

	AUTHOR KEYWORDS (DE)	ARTICLES	KEYWORDS-JOURNAL (ID)	ARTICLES
1	QUALITY OF LIFE	21	AGGLOMERATION	43
2	AGGLOMERATION	15	QUALITY OF LIFE	24
3	URBANIZATION	8	CITIES	20
4	AGGREGATION	5	POPULATION	19
5	CITIES	4	QUALITY-OF-LIFE	19

Source: Elaborated by the authors (2018) using the R software.

After extracting descriptive data (Tables 1 to 7) from our sample, the next step of the systematic review relies on the coupling analysis implemented via exploratory factorial analysis (EFA) with varimax rotation. Using SPSS software (version 22), factor analysis, was executed with information of coupling clusters from the R matrix and resulted in Kaiser-Meyer-Olkin (KMO) of 0.505, with the Bartlett test result in a significance of <.0001. The total explained variance with five factors was 65.42%, with its details in table 8. We named the factors after a detailed analysis of the content of each work.

Table 8.Factorial analysis of coupling papers

Name	Explained Variance (%) - Cumulative (%)	Papers
Factor 1: Urban elements	36.282 - 36.282	(Partridge et al., 2010; Leknes, 2014; Kim; Liu and Yezer, 2009; Ahlfeldt; Maennig and Richter, 2016; Zheng and Kahn, 2013; Dalmazzo and Blasio, 2010; Wang; Wu, 2011; Cheng et al., 2016; Albouy, 2016; Zhang et al., 2017; Camagni; Capello and Caragliu, 2013; Dekle and Eaton, 1999; Song; Zhang and Wang, 2016; Partridge, 2010; Rappaport, 2009; Rappaport, 2008; Park and Rabenau, 2011; Granger and Blomquist, 1999)
Factor 2: Tourism and Health Care	11.175 - 47.457	(Urtasun and Gutiérrez, 2006; Li, 2013; Pessoa, 2014; Rocha; Thorson and Lambiotte, 2015; Vanasse et al., 2010; Friedson and Linh, Huong, &Thuy, 2015)
Factor 3: Special Cases of impacts	7.243 - 54.701	(Ali and Peerlings, 2012; Meyer, 2008; Nijkamp and Kourtit, 2013; Grazi; Bergh and Rietveld, 2007; Witte et al., 2013; Wu and Oueslati, 2016; Wiewel; Persky, 1994)
Factor 4: Foreign investments	5.698 - 60.399	(Hunter et al., 2016; Gholipour, 2013; Yavan, 2010)
Factor 5: Green and Gray areas	5.026 - 65.425	(Yang; Zhu &Moodie, 2014; Sijtsma et al., 2012; Wong, 2001; Cohen et al., 2012)

Source: Elaborated by the authors (2018) using the SPSS software.

The **first factor** aggregate the mainsprings of the field, including Urban, Regional, Geographic and Economics studies or even combinations like Economic Geography, Regional Science and Urban Economics. The first assumption here is against the traditional economic point of view thatproduction, labor, and capital configure the origin of urban growth. We assume the economic argument as essential but far from being unique.Social and cultural amenities are elements that help explain cities or any otherkind of agglomeration behavior. Although political elements are not within the scope of this paper, there are some mentions to specific governmental policy management issues.

Traditional economic studies discuss the growth differences in wage rates and housing coststo assess the roles of urban production and agglomeration externalities (Albouy, 2016; Cheng et al., 2016; Dalmazzo & Blasio, 2010; Partridge, Rickman, Ali, & Olfert, 2010; C. Wang & Wu, 2011). These studies found that remoteness, defined and measured by geographic proximity in the USA urban hierarchy is increasingly associated with lower productivity, contributing to both negative relative wage and housing cost growth differentials (Partridge et al., 2010). The comparison between wage and housing is commonplace in the field, but gives a clue about changes in technology or preferences that favored consuming leisure activities in smaller urban areas and rural areas (Partridge et al., 2010), introducing concepts like increasing household preferences for less-congested smaller urban areas.

The formula to best fit the pros and consshows cities relevance as a research goal (Glaeser, 2011), with its success bringing critiques about the options for cities roles,they can be more competitive or more social grounded (Engelen, Froud, Johal, Salento, & Williams, 2017). A frequent movement in the field is to broaden the size of the formula used in traditional economics studies. For instance, quality of life (QoL) increase with population scale from low to intermediate level and then decreases as it rises further(Rappaport, 2008). Other results show a positive effect of regional population size on QoLwhen controlling for natural amenities (Leknes, 2014). Some recent studies add constructs and possibilities of impacts from and to QoL, like government policy (Ahlfeldt, Maennig, & Richter, 2016), or even changes in perspectives like inter-city and intra-citydifferences(Kim, Liu, & Yezer, 2009; Zheng & Kahn, 2013).

The systematic review of this first factor shows a scant longitudinal research approach, especially about the mechanism (moderation or mediation) of technology in shaping consumer (for example, to increase/decrease the impacts of social amenities) in agglomeration logic. Another limitation of the present factor papers revolves around the competitive advantage insertion in the general formula. Additionally, the competitive advantage could be concerned about industry type and size in the agglomeration (Dekle & Eaton, 1999; Granger & Blomquist, 1999; Song, Zhang, & Wang, 2016) as it is a usual approach in management literature.

The **second factor** focuses on studies related to tourism and healthcare, with the assumption that tourism agglomerations can be impactful on economic, socio-cultural, or environmental systems (Urtasun & Gutiérrez, 2006). Additionally, Li (2013) relates proximity to medical services and government healthcare policy,finding that the influence of local doctors on reducing mortality rates attenuates with distance and the impact of nearby doctors is stronger in more urbanized areas. Different from the previous work, Pessoa (2014) deals with different types of government investments, showing the difference between productive traditional specialization agglomerates and healthcare clusters to understand that some kinds of services have a transformative role. Grounded in AGGL, Pessoa (2014) shows some concepts of TSR without referencing it.

A healthier lifestyle and higher availability of medical support are confirmed to be true relationship in large cities when combined with the discussion about the non-linearity effects of agglomerations (Rocha, Thorson, & Lambiotte, 2015). Moreover, the differences in diseases impact varywith cities sizes and urban-rural disparities, granting the discussion a new focus on government policy (Vanasse, Courteau, Cohen, Orzanco, & Drouin, 2010).

Agglomeration effects attenuate geographically(Li, 2013). Also grounded in AGGL, the spillover effects of agglomeration economies were supported by testing off the impacts of hospital service industry agglomeration to attract specialized medical labs, resulting in reducing the cost of producing laboratory tests(Friedson & Li, 2015).

Differences in access to health care between countriesand the patent war issues in trade partnership agreements are also discussed (Linh, Huong, & Thuy, 2015), a point of view that gives other opportunities for future studies related to government patent policy as a moderator of QoL relationships with other constructs.

These papers are consistent with AGGL approach and discussions of its externalities, i.e., the agglomeration economy of scale. They are effectiveto correlate health care studies with AGGL, but not with TSR. There are many other ways of thinking about the topic, one being the usage of transformative service approach to analyze apps and remote healthcare (Boulos, Brewer, Karimkhani, Buller, & Dellavalle, 2014)and its effects on agglomeration logicorgovernment policy. Another example is to improve the perceptions of Rocha, Thorson, and Lambiotte (2015) and Vanasse et al. (2010) about cities sizes impacted by different diseases, and the possibilities for market segmentation strategies.

The **third factor** relies on particular cases, and it is considered as the least coupled one. The ecological footprint method, a common concept in sustainable development literature is not consistent with spatial welfare economic. Thus, thinking about the sustainable development of regions, transport, location, and trade policies are inconsistent(Grazi, Bergh, & Rietveld, 2007). However, this subject is beyond the knowledge of present authors,and we call for specialized help from sustainable development scientists to integrate these concepts within the present prescribed framework.

Ali and Peerlings (2012) examine the influence of clustering in the decision-making process of rural African households, while Meyer (2008) founds a relation between the clustering of alternative medicine offices and Canadian city sizes. In addition, Wiewel and Persky (1994) instigate the rationale of neighborhood-oriented policy programs based on agglomeration effects. Also, Nijkamp and Kourtit (2013) and Witte et al. (2013) inquires about spatial welfare economic in European Union context, with the former focusing on the trends and challenges of European cities of the future, and the latter targeting the role of transportation.

This factor is highly related to AGGL literature, since its conclusions of clustering as an alternative to diminish transaction costs originated by switching between farm or nonfarm enterprises (Ali & Peerlings, 2012) and impactful on policy-making decisions (Wiewel & Persky, 1994) can be intertwined with the dual causality role between infrastructure investment and regional urban growth (Witte, Oort, Wiegmans, & Spit, 2013). In a smaller degree, the relation with TSR is mainly derivative of the notion of well-being and socioeconomic wealth as highly influential constructs in the future of urban centers (Nijkamp & Kourtit, 2013) and the relation between expansion of several ways of healthcare, urban density and spatial distribution (Meyer, 2008).

The **fourth factor**seeks to understand the determinants and distribution of foreign investments in underdeveloped countries. It´s a specific cluster with minor influence, but it´s another example of possibilities of studies about the impact of the field, especially for management bias.Yavan (2010) analyze the determinants of foreign investment made in Turkey, while Gholipour (2013) seeks to understand the determinants of foreign investment in the Malaysian real state market.

The main empirical conclusion of these articles converges to the finding that there is a positive relationship between the level of agglomeration of specific sectors in the probability of receiving foreign investment, explained mainly by agglomeration economies, information costs (Yavan, 2010), GDP per capita and religious plurality (Gholipour, 2013). A divergence between the two conclusions that must be emphasized is the mixed result of the influence of quality of life on the decision on investment in underdeveloped countries. In the study by Yavan (2010) this factor was shown to be not significant, whereas, in Gholipour (2013), there was empirical confirmation of the positive statistical significance. Although the form of measurement and the conceptual domain are different, this point request our attention and open possibilities for future studies.

The **fifth and last factor** is composed of four papers in which they seek to understand the influence of green spaces in urban centers (Cohen, Baudoin, Palibrk, Persyn, & Rhein, 2012), the effect of coexistence in urban centers in the search for green areas (Sijtsma, Vries, Hinsberg, & Diederiks, 2012), as well as the impact of local economic development in the quality of life (Wong, 2001; Yang, Zhu, & Moodie, 2014).

The article by Wong (2001) seeks to understand the direct relationship between factors of quality of life and local economic development of England regions, while the article by Cohen and colleagues (2012) primary goal is to examine the geographic distribution of green areas within the city of Paris and its relationship with the levels of urban agglomeration and socioeconomic distribution. Sijstma and colleagues (2012)objective is to understand how the variable scarcity of green areas in large metropolitan centers affects the compensatory leisure behavior in green regions far from Dutch metropolises;the results indicate that individuals residing in more "greyish" urban areas spend more of their leisure time doing physical activities in green areas.

There is a convergence of results between the study of Wong (2001) and Yang et al. (2014) since they found that quality of life as an important influence factor of local economic development. Additionally, it is also possible to understand the negative effect of urban agglomeration on the spatial distribution of green areas in large cities(Cohen et al., 2012;

Sijtsma et al., 2012). A divergence is about the QoL as a reproducer(Wong, 2001) or a producer (Yang et al., 2014)of the spatial distribution for local development.

DISCUSSION

Quantitative research scholars believe that a structured workflow is better to develop new theories, and the choice of constructs to build a model is a challenging process. Thus, a framework from a systematic review can help the researcher in this task.Our framework, understood here as anextensive but not exhaustive nomologicalnetwork, has two major relationships between constructs: upstream and downstream. The former precedes the focal constructs regarding either time and process execution or the sequence of relationships and influences, while the latter follows the focal construct. However, allconnections between the upstream and downstream networks may not necessarily go through the focal constructs. Additionally, It is possiblethat constructs networks wield higher levels of complexity,enabling reverse causality(Antonakis, Bendahan, Jacquart, & Lalive, 2010).

We present a framework for quantitative studies from a systematic literature review, totalizing 213 extracted sample articles. Figure 1 shows the most important constructs, and it`s relationships with the New Core Research Field (NCRF). The classification of the constructs as dependent or independent variables is highlighted below through the arrow positioning between the constructs and the NCRF.

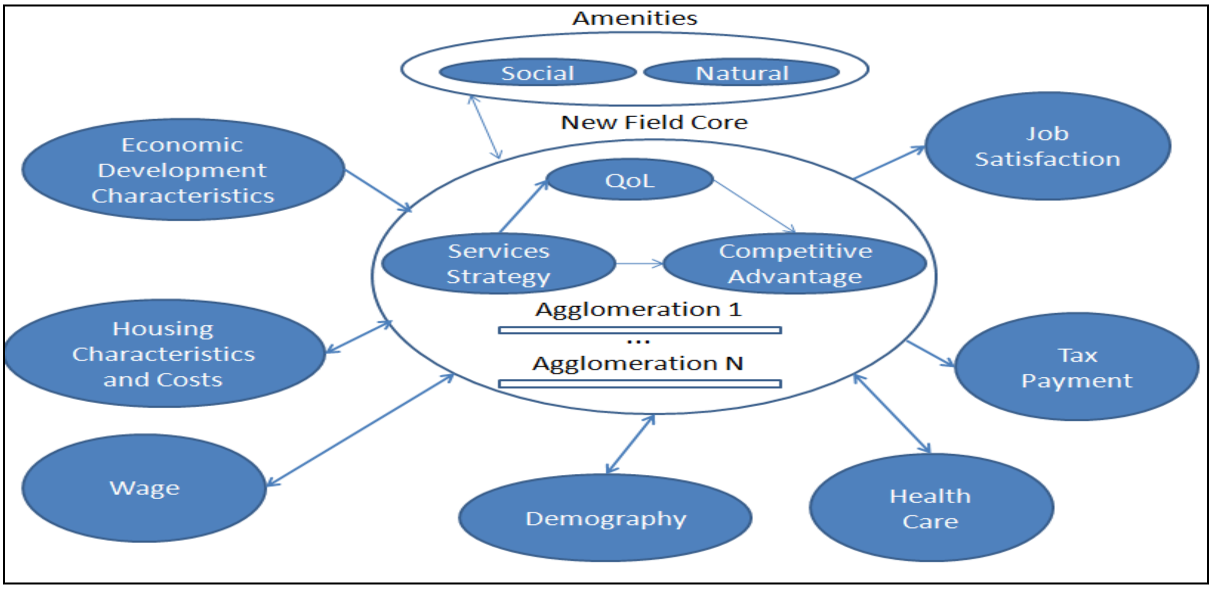

Figure 1. Framework of external constructs related to the NCRF
Source: Elaborated by the authors (2018).

Furthermore, some explanations and assumptions must be clarified to interpret Figure 1. First, we adopt QoL to understand many constructs related to Social Welfare or human well-being, QoL construct is usually operationalized using amenities. However, it can also be measured using proxies related to GINI index or GDP (Gross Domestic Product) (Chelli, Ciommi, Emili, Gigliarano, & Taralli, 2016). The literature suggests that QoL is directly related to natural and social amenities, with the latter potentially influenced by services strategy (Song et al., 2016) and the former affecting the core constructs and agglomeration characteristics. For example, Natural amenities are usually portrayed by woodland, temperature, slope, wind speed and precipitation (Albouy, 2016; Leknes, 2014) whereas social amenities are commonly referred as health care, education and highways(Camagni, Capello, & Caragliu, 2013).

Demography is usually measured with simple proxies (Song et al., 2016; Winters, 2014), or sometimes related to GDP per capita (Cheng et al., 2016). This last option shows that demography sometimes is a confounding with QoL construct. As it turns, economic development characteristics like capital, infrastructure and labor amount (Wong, 2001) can be confused with other constructs of Figure 1. These examples were expected in a research sample of multiple areas and terminologies, so, toestablish a convergence is the goal of present work.

Focusing on the NCRF portion of the framework, the left side of Figure 2 shows the possibilities (N) of agglomerations that exists in a city. Moreover, every agglomeration can have a separate service strategy and a different competitive advantage, while also being part of the city shared services strategies and shared competitive advantage. In addition, the right side of Figure 4 shows a mediation model where the commonly researched direct relationship between services strategy and competitive advantage in management literature is displayed in addition with the indirect path emerging from TSR approach, represented by the QoL construct as a mechanism that better explain the direct effect.

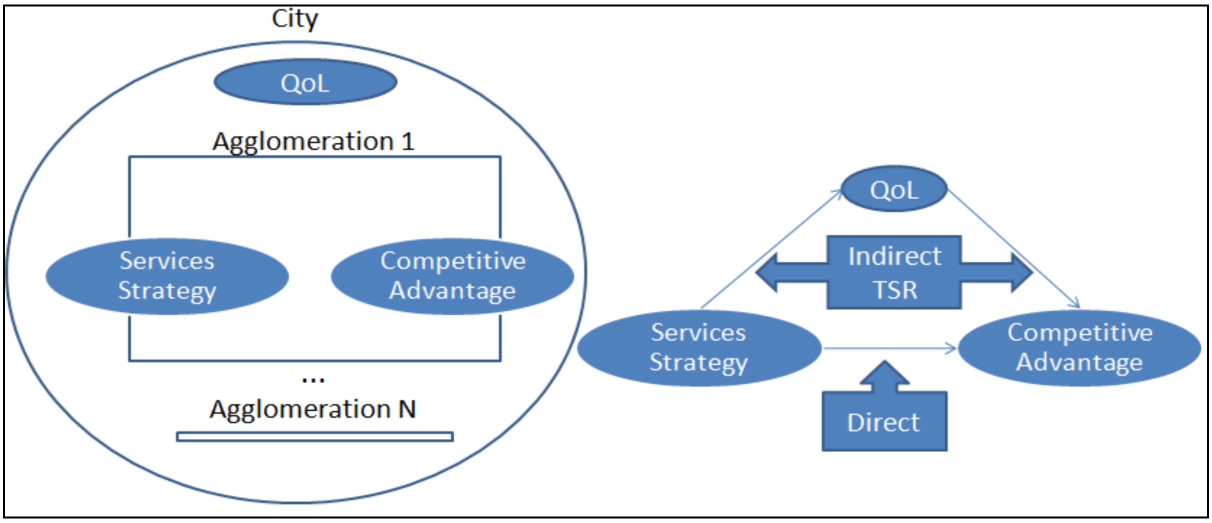

Figure 2. TSR and AGGLNew Core Research Field (NCRF) detailed
Source: Elaborated by the authors (2018).

Furthermore, Table 9 shows an extensive list of potential variables for future quantitative studies in this new field, alongside with their operationalization method and references.

Table9.List of external constructs for future quantitative studies

Latent Name	Proxies	How to measure	References
Social Amenity component	Heath care	Number of beds in hospitals per 10,000 persons	ZhengandKahn (2013), Li (2013)
	Education	Teacher-to-pupil ratio in middle schools	Zheng andKahn(2013)
	Highways	Highway improvement in neighbor cities during a period	Zheng andKahn(2013)
	urban per capita road area		Cheng et al. (2016);Songet al. (2016)
Wage	Change in wage rates	log change in wage rates	Partridge et al. (2010); Kim et al. (2009); Winters (2014)
Metropolitan Area	Dummy	Non-metro, Small metro, Large metro	Partridge et al. (2010); Partridge (2010);

Table 9 (continued).

Latent Name	Proxies	How to measure	References
Demography	County/city Population	Log	Partridge et al. (2010); Leknes (2014); Kim et al. (2009); Zheng, Kahn(2013);Dalmazzo&Blasio (2010);Wang & Wu (2010);Camagni (2012),Li (2013); Rocha et al. (2015); Vanasse et al. (2010); Song et al. (2016); Winters (2014)
	GDP per capita	$	Chenget al. (2016);Rochaet al. (2015);Songet al. (2016)
	Unemployment rate	%	Leknes (2014); Vanasse et al. (2010); Song et al. (2016); Winters (2014); Simonen 2016
	% Population Average by age group	7-17;18-24;25-54;55-59;60-64;65	Partridge et al. (2010); Winters (2014)
	% Population Average by education	high school, college, higher degree	Partridge et al. (2010); Kim et al. (2009);Albouy (2016);Winters (2014)
	% gender	% gender	Partridge et al. (2010);DalmazzoandBlasio (2010); Vanasse et al. (2010);Winters (2014)
	% married	% married	Partridge et al. (2010);DalmazzoandBlasio (2010);Winters (2014)
	% desabilities	% desabilities	Partridge et al. (2010)
Housing costs/prices	Change in housing costs/prices	Log change (median rent for 2-bedroom houses ($/month)	Partridge et al. (2010);Ahlfeldt et al. (2016); Zheng and Kahn(2013); DalmazzoandBlasio (2010);Albouy (2016);Camagni (2012); Dekle and Eaton (1999)
Distance to Metropolitan area	Distance to the center of own metro	Km	Partridge et al. (2010);Winters (2014); Ahlfeldt et al. (2016);Albouy (2016)
Natural Amenity component	Heating	Average annual heating days	Partridge et al. (2010);Wang & Wu (2010);Partridge (2010)
	humidity	% Mean July relative humidity	Partridge et al. (2010); Partridge (2010)
	Area of woodland		Leknes (2014)
	River length		Leknes (2014)
	Mountain share		Leknes (2014)
	Slope		Leknes (2014); Albouy (2016)
	Wind speed		Leknes (2014)
	Precipitation		Leknes (2014); Wang & Wu (2010); Winters (2014)
	Green	Public green area per capita	Zheng and Kahn (2013); Cheng et al. (2016)
Job satisfaction	Job satisfaction		DalmazzoandBlasio (2010)
Tax Payment	Federal Tax lump sum		Albouy (2016)

Source: Elaborated by the Authors (2018).

CONCLUSION

In summary, the New Core Research Field (NCRF) prescribes the need to measure the quality of life as a mechanism from services strategy to competitive advantage, a TSR approach, using different levels of agglomeration inside a city or a country, and to do so, we compiled the Table 9 as shortcut for quantitative studies. We conjecture that new technologies like home office technologies, apps for banking and transportation, 3D printing, drones are suitable contexts for the TSR and AGGL NCRF studies.

Researchers should look at the extant literature with skepticism and optimism to look for opportunities. Skepticism can be associated with the methodsalready used, how variables are operationalized or even how constructs' domain is defined. We saw that most of the papers studied, outside the TSR domain, seem to forget the joint influence of service strategies and customer choice for city development, and it`s subsequently impact on the quality of life. Therefore, the present paper proposes that the TSR and AGGL research streams can be combined to explain this seemly double-edged effect in a more sophisticated manner, by focusing on the indirect impact of services strategies on competitive advantage through quality of life.

In the proposed NCRF, an optimist opportunity is about moderation, mediation, and conditional process analysis (Hayes, 2013), mechanisms that the sample bibliometric papers weren`t much interested in. In addition, Table 9 primarily from urban studies and economic geography disciplinesgives many control variables that could give rise to several intervenient variables studies in management, especially in consumer behavior, public administration and retailing.

Do some issues still rise to build the NCRF: should it be interdisciplinary or cross-disciplinary literature? How could such literature be built/adapted to economics, management, sociology or even geography? In each of these fields, how can this literature and constructs be reconciled to advance its development? Moreover, how could the literature be institutionalized: as aninterdisciplinary knowledge area or a new field? The creation of a framework and the proposition of a new research agenda can be seen as a start to this discussion, mainly as a tool to generate awareness to the aforementioned topic and to allow new quantitative studies.

An explicit and unavoidable limitation of present work is in the language gap between the disciplines and its reverberation on assumptions and constructs names or definitions. This limitation makes this broader research initiative perilous to be followed without deeper re-conceptualizations by the diverse disciplines.

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