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Stakeholder Model in Digital Services in Ecuador

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Abstract

The globalization of markets, technological innovation, interconnectivity, IoT, and blockchain have brought about significant changes in the processes of negotiation and commercialization of goods and services, steering them toward a digital economy. This new business reality highlights the importance of managing relationships, responsibilities, attributions, rights, and obligations of the various stakeholders involved in the digital ecosystem. In this context, the objective of this research is to identify the main stakeholders in digital services in Ecuador. To achieve this, the methodology proposed by Mitchell, Agle, and Wood was applied to a sample of 356 companies that market their products through digital means. The result was a stakeholder model based on the prominence, responsiveness, and attributes of the actors, namely power, legitimacy, and urgency. The study identified companies and financial institutions as stakeholders with power; influencers, content creators, and investors with legitimacy; and customers as stakeholders with urgency.

Keywords: *Digital Economy, Stakeholder, Digital Services.*

Introduction

The digital revolution has transformed the economy and society, enabling the development of a connected economy characterized by the widespread adoption of the Internet through the growing use of digital platforms as business models for the provision of goods and services. Companies, entrepreneurs, and individuals must adapt to this new business model, where marketing and consumption are essentially based on digital ecosystems.

According to the Economic Commission for Latin America and the Caribbean (ECLAC) (2020), a digital ecosystem is made up of various interconnected elements, such as telecommunications infrastructure, the information and communication technologies (ICT) industry, and a set of economic and social activities carried out through the internet, including social networks and digital businesses. Deutscher & Jacobides (2020) state that the digital economy encompasses sectors with a physical structure, such as hardware and software, summarized under a single term known as e-commerce. Specifically, four sectors are identified: (1) digital goods and services, (2) mixed digital goods and services, (3) production of goods and services that are intensive in information and communication technologies (ICT), and (4) the ICT industry that supports

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hardware, software, and services.
The digital economy has experienced significant concentration in today's world, where a small number of dominant companies exert substantial control over the market. According to recent data, the five leading technology companies—Amazon, Apple, Google, Microsoft, and Facebook—each have a market value exceeding one trillion dollars (Kantar, 2023). This concentration is also reflected in revenue distribution, as a study by ECLAC indicates that 70% of the profits generated by the digital economy are concentrated in the United States and China (Economic Commission for Latin America and the Caribbean (ECLAC), 2023).
The value of the digital economy is driven by the monetization of data through online targeted advertising (Google and Facebook), the operation of e-commerce platforms (Amazon, Alibaba, and Uber), the transformation of traditional goods into profitable services, and the rental of cloud services. In this context, actors assess every opportunity to create value at the individual, small and medium-sized enterprise, and government levels, as well as the impact on the traditional economy (United Nations Organization, 2022).
The characteristics of digital companies are based on mobility, intangible assets, and the volatility of technology access, which generate variations in types of e-commerce, such as business-to-business (B2B), business-to-consumer (B2C), consumer-to-business (C2B), and consumer-to-consumer (C2C) (Almachi, 2020). The adoption of new technologies improves the efficiency of both public and private companies; at the sectoral level, the greatest benefits are estimated for public services (health, education, and security, including smart city services). Significant increases are also expected in the value of professional services, manufacturing, logistics, trade, services, and agribusiness.
At the same time, digital services represent an opportunity for consumers to access information and knowledge of all types of formats, goods, and services more quickly and remotely. This means that consumer needs can be met with smart products and highly personalized services. The effects of digital services include reducing transaction and intermediation costs and leveraging the information generated by digital platforms. Digital models have facilitated the generation and capture of data, which, once processed, are analyzed with intelligent tools for business decision-making and resource optimization. They particularly drive the development of operational processes, market segmentation, personalization, and product transformation (Agudelo, 2021).
Currently, digital services, content, and activities have enabled companies to impose new business models adapted to the realities of e-commerce. The distribution of information through networks has exposed topics such as telematics, information highways, cyberspace, robotics, and artificial intelligence related to information, communication, transactions, and training. Digital information products include financial information, market analysis, and research on digital companies; even governments are applying tax regulations to generate revenue for public coffers. Clearly, the development of the digital economy entails a radical shift in the value proposition of companies that produce and market goods and services. Costs of transformation and intermediation are reduced, and information from commercial exchanges on digital platforms is exploited.
These processes lead to identifying the dimensions that affect society, the productive sector, and the State. The key dimensions of the digital economy are: value distribution, movement up the value chain, and governance of value creation versus value capture through the collection, storage, analysis, and transformation of data into artificial intelligence (Jurva & Matinmikko-Blue, 2019). It is essential to establish the stakeholders in each dimension before building

business strategies, knowing that many of these groups significantly affect organizational performance.

According to Hart and Sharma (2004) companies often lack clarity on which stakeholders are critical and important for generating the necessary knowledge for innovation. In fact, stakeholders hold key positions in certain production, marketing, and consumption processes. Mitchell et al. (1997) observed that stakeholder identification revolves around distinguishing: (1) claimants versus influencers; (2) individuals with an actual or potential relationship; and (3) the nature of power, dependence, and reciprocity in stakeholder-organization relationships.

Business strategies must therefore be established according to objectives and aligned, to some extent, with stakeholder interests. The most influential factors include: (a) resource dependency; (b) economic and financial transactions; (c) contractual relationships; (d) legal liability; (e) ethical, moral, or social responsibility; (f) risk exposure; (g) geographic location; and (h) market relationships. Stakeholders can be internal or external, with key ones being employees, suppliers, customers, and government, all of whom influence business decisions. For example, customer satisfaction, tax payments, shareholder profitability, competition, and employee motivation and performance in the production and marketing processes.

Identifying stakeholder groups in digital services is not an easy task, as stakeholders depend on their role in the digital system and technological innovation, ranging from idea development and prototyping to product expansion into e-commerce; the value derived from website creation, digital marketing, social media management; internet providers; universities; influencers; and agencies responsible for e-invoicing, tax collection, and quality service measurement (Heredia Pincay & Villareal Satama, 2022).
For this reason, the objective of this research is focused on identifying the stakeholders involved in digital services, in order to establish a model considering three fundamental aspects: Power, Legitimacy, and Urgency.

2. Literature Review

2.1. Stakeholder Theory

Stakeholders, or interest groups, are part of the business model of small, medium, and large companies. The origin and evolution of the concept dates back to 1963, in an internal study by the Stanford Research Institute, where stakeholders were defined as those groups without whose support the organization would cease to exist (Freeman, 1984). According to this concept, an organization's survival depends on stakeholder cooperation.
The stakeholder theory developed in the early 1980s and became popular in the 1990s, creating a more complex perspective for companies and society in a context where globalization and technological development were emerging trends. Freeman (1984) explained that stakeholders were groups of individuals who could affect or be affected by the achievement of business objectives; in other words, this group had a vested interest. In business terms, these groups have the right, claim, or decision-making power in company management (Clarkson, 1995).
Argandoña (1998) stated that the needs of stakeholders must be considered in planning, particularly for identifying opportunities and threats in an organization. This author also believed that social objectives are subordinate to economic objectives; barriers or influences are common in meeting goals over time, leading to the idea that stakeholder theory may not be a theory in itself.

Regarding stakeholder theory, Ackoff in the mid-1970s applied an organizational systems analysis method, arguing that participation was necessary for problem-solving, making stakeholders part of the system. Another line of thought links stakeholders to corporate social responsibility (CSR), which aims for organizational results to benefit the community and employees to a greater extent than shareholders or owners (Harrison, Freeman, & Cavalcanti Sa de Abreu, 2015).

Identifying stakeholders is the first step in building business strategies, knowing that many of these groups affect organizational development because they change over time. Thus, studying the organization based on objectives and aligning with stakeholder interests is essential. Influential factors include: (a) resource dependency; (b) economic and financial transactions; (c) contractual relationships; (d) legal liability; (e) ethical, moral, or social responsibility; (f) risk exposure; (g) geographic location; and (h) market relationships.

Stakeholders in digital services today are not easy to manage. According to Hart and Sharma (2004) companies often do not know which stakeholders are key for generating innovation-related knowledge. In fact, stakeholders hold critical positions in production, marketing, and consumption processes. Mitchell et al. (1997) observed that stakeholder identification involves distinguishing between: (1) claimants versus influencers; (2) individuals with an actual or potential relationship; and (3) the nature of power, dependence, and reciprocity in stakeholder-organization relationships.

Mitchell et al. (1997) argued that influencers hold power over companies, but whether they have valid claims or want to exert pressure is another matter. Claimants may have legitimate or illegitimate claims, but they may lack the power to influence the company. Hart and Sharma (2004) admitted that it is nearly impossible to involve all stakeholders potentially affected by corporate decisions. Their advice is for companies to adopt what they call Radical Transactivity (RT), which involves extending (broadening the company's scope) and opening up (integrating diverse and contradictory information).

Fan distribution aims to identify stakeholders and issues within companies to better understand their concerns and avoid antagonistic groups. The stakeholder analysis process includes: (1) training individuals to overcome boundaries in conciliatory terms by integrating marketing, acquisitions, communication, and new business development strategies with those groups within the business network; (2) establishing corporate departments to coordinate information from boundary spanners to develop lists of marginal stakeholders; (3) initiating a task force to create strategies for effective communication with stakeholders; and (4) implementing strategies in collaboration with marginal stakeholders for cooperative business agreements.

The stakeholder analysis process focuses on: (1) training managers on cultural sensitivities in company areas; and (2) encouraging managers to personally visit or temporarily stay in locations occupied by marginal stakeholders to foster competitive imagination for future business growth. Additionally, there is a strong need to manage stakeholders through various engagement strategies (i.e., communication, partnerships, and capacity building) to enhance the sustainability of digital projects.

2.2. Mitchell, Agle and Wood Model

Mitchell et. al. (1997), presented the model to determine stakeholders based on salience, sensitivity, and actor attributes such as power, legitimacy, and urgency.

Regarding Power, Weber (1947) defines it as: "*the probability that an actor within a social relationship will be able to carry out his own will despite resistance*." Dahl (1957) defines it as "*a relationship among social stakeholders in which one social actor, A, can get another social*

actor, B, to do something that B would not otherwise have done." Mitchell et al. (1997), state that "*power can be difficult to define, but it is not so difficult to recognize*." According to Salancik & Pfeffer (1974), "*It is the ability of those who possess power to produce the results they desire*". Etzioni (1964) categorizes power from three perspectives: coercive power, based on the physical resources of force, violence, or restriction; utilitarian power, based on material or financial resources; and normative power, based on symbolic resources.

Regarding Legitimacy, Mitchell et. al. (1997), analyzed that the core of legitimacy lies in something at risk, in property rights, and in moral claims, which together constitute the articulation of "The Principle of Who and What Really Counts." Davis distinguished between the legitimate and illegitimate use of power, stating: "In the long run, those who do not use power in a way that society considers responsible will tend to lose it" (1973: 314).. Weber (1947) indicated that legitimacy and power are distinct attributes that can combine to create authority (defined by Weber as the legitimate use of power), but they can also exist independently. Finally, Suchman (1995) defines legitimacy as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (1995: 574).
Regarding Urgency, Mitchell et. al. (1997) proposed making the model dynamic by including this variable, since power and legitimacy as independent variables do not fully capture the dynamics of stakeholder relationships. They note that urgency is based on two attributes: (1) time sensitivity: the degree to which managerial delay in attending to a claim or relationship is unacceptable to the stakeholder; and (2) criticality: the importance of the claim or relationship to the stakeholder. Thus, they define urgency as "the degree to which stakeholder claims call for immediate attention."
Figure 1 presents the classification of stakeholders based on the Mitchell, Agle, and Wood model in relation to power, legitimacy, and urgency. Within this framework, there are six categories: dominant, latent, demanding, dependent, definitive, and discretionary.

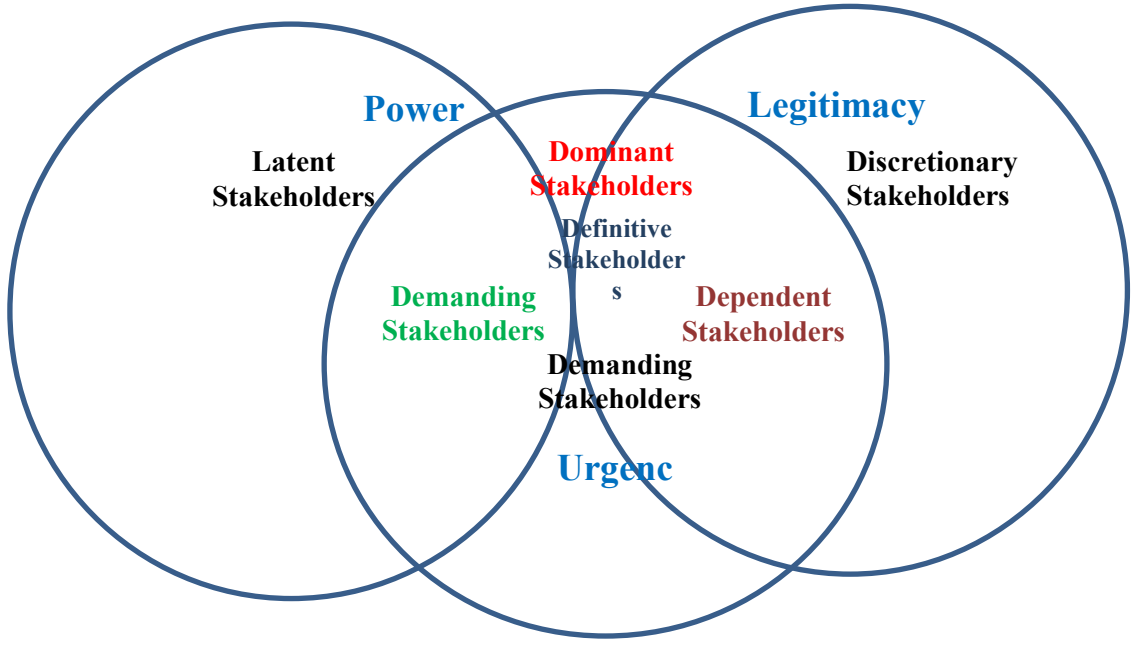

Figure 1. Graphical classification of stakeholders
Note. Adapted from the Mitchell, Agle, and Wood model (1997) (p 874)

3.- Methodology

To identify the stakeholders related to digital services, the approach of Yang et al. (2011) was followed by creating a preliminary list to include primary or internal stakeholders that are easily identifiable. To avoid excluding stakeholders that are harder to identify, secondary sources were used, such as institutional websites, sustainability reports, and public documents produced by companies that offer digital services.
Semi-structured interviews, focus group discussions, and the snowball sampling technique were then employed. Preliminary stakeholders were contacted to gather more information on other potential stakeholders, as suggested by Andrew et al. (2015). In addition, stakeholder participation in digital services was analyzed using experiences from other studies on stakeholder groups, considering roles, cooperation, expectations, networks of influence and information, and possible conflicts. Chevalier y Buckles (2008).

This research seeks to explore specific characteristics of stakeholders in digital services in Ecuador, as well as the nature and type of interactions among them. The study adopts a quantitative, exploratory approach. For data collection, the methodology proposed by Gorrochategui et al. (2013) was applied to characterize and identify stakeholder relationships. The typology of Mitchell, Agle, and Wood (1997) was then observed, focusing on the three factors of Power, Legitimacy, and Urgency.

Considering that the research focuses on digital services, primarily the use of mobile devices, internet, and social media, it is important to note that according to CEDE (2021) the country has an average population of 18 million, of which 15.91 million have mobile internet connections, 13.60 million are internet users, and 14.60 million are active on social media. Regarding web traffic by device, 41.52% comes from mobile phones, 57.23% from desktop computers, 1.22% from tablets, and 0.03% from other services.

This context allowed the determination of the sample size using the simple estimation method formula for Unrestricted Random Sampling (Calero, 2003), resulting in 356 companies that provide services through the digital economy. Stratified sampling by proportional allocation (Calero, 2003). was then applied, and to ensure random selection, Kendall & Babington's (1939) random number tables were used.

4.- Results

The following section details the results obtained according to the applied methodology.

4.1.- Stakeholder Identification

To identify stakeholders, it was necessary to determine the dimensions of the digital economy: Business, Innovation, Policies and Regulations, and Individual Aspects. Within each dimension, stakeholders were grouped according to their characteristics. The results are shown in Table 1.

Table 1. Stakeholder Identification

Dimensions	Stakeholder Group	Characteristics
Business	Companies Investors	• Invest in R&D and digital technologies • Adopt digital products and services in operations • Use new business models to provide personalized and integrated products and services
Innovación	Universities Institutes Training Centers Innovation Centers	• Create new innovations for the digital economy • Train and manage talent • Promote collaboration through innovation centers
Policies and Regulations	Government Financial entities NGO´s Asociations / Unions	• Promote and regulate the digital economy • Provide integrated online public services • Collect data • Provide open data for community use. • Strengthen cybersecurity and risk management • Develop supporting infrastructure
Individual Aspects	Clients Digital marketing professionals Influencers Content creators Web developers Graphic designers	• End users of products and services • Content owners • Creators • Active participants via P2P networks • Workforce supply

Note. Author's own elaboration

4.2.- Types of stakeholderes

Once the main stakeholders were identified, it was necessary to divide them into internal and external groups, as detailed in Table 2.

Table 2*. Types of stakeholderes*

Stakeholders Group	Internal	External
Companies		X
Inverstors		X
Universities		X
Institutes		X
Training Centers		X

Innovation Centers		X
Government		X
Financial Entities		X
NGO´s		X
Associations		X
Unions		X
Clients	X	
Digital Marketing Professionals	X	
Influencers	X	
Content Creators	X	
Web Developers	X	
Graphic Designers	X	
Total	6	11
Percentage %	35,29%	64,71%

Note. Own elaboration.

The description of internal and external stakeholder groups shows that companies offering digital services must negotiate with external stakeholders to mitigate risks in the digital market, as they represent 64.71%.

4.3.- Organization's Objective Regarding Stakeholders

The objectives of organizations providing digital services with respect to their stakeholders are directed toward the following categories: digital services, digital education, digital advertising, digital economy, and corporate social responsibility (see Table 3).

***Table 3**. Organization's Objective Regarding Stakeholders*

Dimensions	**Stakeholder Group**	**Digital Services**	**Digital Education**	**Digital Advertising**	**Digital Economy**		**Social Responsability**	**Number**	**%**
Business Innovators	Companies	X	X	X	X	X		6.630,0	0,09%
	Investors	X			X			882.768,0	12,15%
	Universities		X			X		100,0	0,00%
	Institutes		X			X		186,0	0,00%
	Government				X			1,0	0,00%
Polícies and regulations	Financial Entities (Banks)	X			X			24,0	0,00%
	Financial Entities (Cooperatives)	X			X			800,0	0,01%
	NGO´s					X		4.939,0	0,07%

	Unions					X	3.179,0	0,04%
	Clients	X					4.662.000,0	64,17%
	Digital Marketing Professionals	X					360.000,0	4,96%
	Influencers			X			780.000,0	10,74%
Individual	Content creators			X			390.000,0	5,37%
	Web developers			X			156.000,0	2,15%
	Graphic Designers			X			18.000,0	0,25%
Total		6	3	5	5	5	7.264.627,0	100,00 %
Percentage %		25,00%	12,50%	20,83%	20,83 %	20,83%		

Note. Own elaboration.

It is evident that digital services have experienced significant growth in the Ecuadorian market and worldwide. Online shopping, social media presence, and virtual platforms such as payment systems have driven companies to become part of the digital economy.

4.4.- Types of Organizational Responsibility by Stakeholders

The analysis of the selected sample allows us to present the dimensions of the business role and its impact in terms of primary, secondary, and tertiary responsibilities, as shown in Table 4.

Table 4. *Types of Organizational Responsibility by Stakeholders*

Dimensions	**Stakeholders Group**	**Primary**	**Secondary**	**Tertiary**
Business Innovators	Companies	X		
	Investors		X	
	Universities			X
	Institutes			X
	Government		X	
Polícies and regulations	Financial Entities (Banks)	X		
	Financial Entities (Cooperatives)	X		
	NGO´s			X
	Unions			X
Individual	Clients	X		
	Digital Marketing Professionals		X	
	Influencers			X
	Content creators		X	
	Web developers	X		
	Graphic Designers			X
Total		5	4	6

Percentage %	33,33%	26,67%	40,00%

Note. Own elaboration.

The business roles of companies are related to digital services, which are directly linked to technology, innovation, development, and regulations governing these organizations, most of which are currently operating in the country. The digital business context, being an alternative market to the traditional economy, often overlooks operations, business models, taxation systems, and strategies required to remain competitive on a global scale.

4.5.- Dependence of Digital Services with Respect to Stakeholders

The dependence of organizations on stakeholder groups is categorized into absolute, moderate, and null. According to Gorrochategui et al. (2013) los, company executives must understand and decide how to act in response to stakeholder actions, as these can become threats or risks. The most notable include survival threats, moderate risk, and those that pose no risk. (see Table 5)

Table 5*. Organization's Dependence on Stakeholders*

Types	Threat	Absolute	Moderate	No Risk
Types of risk	Threatens survival	Companies Investors Financial Entities (Banks) Financial Entities (Cooperatives) Clients Web Developers		
	Moderate Risk		Digital Marketing Professionals Content Creators	
	No Risk			Universities Institutes NGO´s Unions Influencers

Note. Own elaboration.

The main dependencies of digital services are with companies, investors, financial entities, and web developers. Moderately dependent are marketing professionals and content creators; no risk is associated with universities, institutes, unions, NGOs, influencers, and graphic designers.

4.6.- Mitchell, Agle and Wood Model

To evaluate stakeholders, the Mitchell, Agle and Wood model was applied, as it offers an understandable process and establishes better analysis of stakeholders' influence on

organizations. It uses indicators based on preponderance, sensitivity, and attributes such as power, legitimacy, and urgency.

4.6.1- Power Matrix

The power matrix refers to the ability of interest groups to influence organizations. According to Gorrochategui et al. (2013), to quantify the degree of power of each stakeholder, the sensitivity and availability of power resources at the coercive, utilitarian, and symbolic levels are considered for each identified actor. For this purpose, a scale has been established where 0 (zero) indicates no sensitivity to resources, and 3 (three) represents extreme sensitivity. The same process is used for the degree of availability, where 0 means the actors have no resources, and 3 indicates the actors have maximum influence capacity. Finally, the determination of the degrees of power is obtained by multiplying the degree of sensitivity to resources by the degree of availability of actors, and the multiplication of all degrees of power yields the final result. (See Table 6)

***Table 6**. Power Matrix*

	Coercive means		Utilitarian means				Symbolic means	
	Digital Economy	TIC´s	Hardware Manufacturing	E-commerc	Social Networks	Financial Services	Recognition and financial estimates	Degrees of Power
Degree of sensitivity of resources	1	2	3	3	3	3	1	
Companies								
Availability level	2	3	3	3	3	3	1	
Degree of power	2	6	9	9	9	9	1	78732
Investors								
Availability level	1	2	3	1	1	2	1	
Degree of power	1	4	9	3	3	6	1	1944
Universities								
Availability level	1	3	1	1	1	1	1	
Degree of power	1	6	3	3	3	3	1	486
Institutes								
Availability level	1	3	1	1	1	1	1	
Degree of power	1	6	3	3	3	3	1	486
Government								
Availability level	2	3	1	2	1	3	1	
Degree of power	2	6	3	6	3	9	1	5832
Financial Entities (Banks)								
Availability level	2	3	2	2	2	3	1	
Degree of power	2	6	6	6	6	9	1	23328
Financial Entities (Cooperatives)								

Availability level	2	3	2	2	2	3	1	
Degree of power	2	6	6	6	6	9	1	23328
NGO´s								
Availability level	1	2	1	1	1	1	1	
Degree of power	1	4	3	3	3	3	1	324
Unions								
Availability level	1	2	1	1	1	1	1	
Degree of power	1	4	3	3	3	3	1	324
Clients								
Availability level	1	3	1	3	3	3	1	
Degree of power	1	6	3	9	9	9	1	13122
Digital Marketing Professionals								
Availability level	1	3	1	3	3	1	1	
Degree of power	1	6	3	9	9	3	1	4374
Influencers								
Availability level	1	3	1	3	3	1	1	
Degree of power	1	6	3	9	9	3	1	4374
Content creators								
Availability level	1	3	1	3	3	1	1	
Degree of power	1	6	3	9	9	3	1	4374
Web developers								
Availability level	1	3	3	3	3	1	1	
Degree of power	1	6	9	9	9	3	1	13122
Graphic Designers								
Availability level	1	3	1	1	3	1	1	
Degree of power	1	6	3	3	9	3	1	1458

Note. Adapted from the Mitchell, Agle and Wood model (1997)

For the power matrix, the following factors were considered to measure the degree of power: the digital economy, ICTs, hardware manufacturing, e-commerce, social networks, financial services, and recognition and esteem. The quantification, based on the previously mentioned scale, was applied to companies and financial institutions. It is evident that digital services are the future, as companies are increasingly investing in the development of virtual platforms, greater engagement in social networks, and facilities for customers to make purchases in online stores through banking services. This background highlights the higher scores for these stakeholder groups.

4.6.2.- Legitimacy Matrix

The legitimacy matrix is one that generates perceptions of the activities that link organizations with society, particularly in social contexts applied within a normative and even cultural framework. Gorrochategui et al. (2013) based the evaluation of legitimacy levels on the desirability of stakeholder groups. For the development of the legitimacy matrix, a scale was

used where 0 refers to the actions of actors as undesirable and 3 as highly desirable. By multiplying the factors, the degree of desirability was obtained (see Table 7).

Table 7. *Legitimacy Matrix*

	Levels of desirability		Degrees of desirability
Stakeholder group	For the organization	For society	Total
Companies	3	3	9
Investors	3	1	3
Universities	2	3	6
Institutes	2	3	6
Government	3	3	9
Financial Entities (Banks)	3	2	6
Financial Entities (Cooperatives)	3	2	6
NGO´s	2	3	6
Unions	2	1	2
Clients	3	3	9
Digital Marketing Professionals	3	1	3
Influencers	3	1	3
Content creators	3	1	3
Web developers	3	2	6
Graphic Designers	3	1	3

Note. Adapted from the Mitchell, Agle and Wood model (1997)

The interpretation of the matrix refers to the importance of the actors at the business and social levels within the digital market, through the linkage of Corporate Social Responsibility, which enables contributions to the communities or geographic sectors where companies operate through social actions to ensure people's well-being.

4.6.3.- Urgency Matrix

The urgency matrix represents the relationship based on the need for prioritized attention to the demands and expectations of stakeholder groups, considering temporal sensitivity and criticality. The scale used for this quantification was 0 for temporal sensitivity, meaning complete acceptance of delay, and 3 for non-acceptance of delay. For criticality, 0 was assigned to non-critical factors that do not lead to losses, and 3 to highly critical factors causing losses for stakeholders (see Table 8).

Table 8*. Urgency Matrix*

	Urgency criteria		Degrees of urgency
Stakeholder Group	Temporal sensitivity	Criticality	Total
Companies	3	3	9

Investors	3	3	9
Universities	2	1	2
Institutes	2	1	2
Government	1	1	1
Financial Entities (Banks)	3	3	9
Financial Entities (Cooperatives)	3	3	9
NGO´s	1	1	1
Unions	1	1	1
Clients	3	3	9
Digital Marketing Professionals	3	1	3
Influencers	3	1	3
Content creators	1	1	1
Web developers	3	3	9
Graphic Designers	1	1	1

Note. Adapted from the Mitchell, Agle and Wood model (1997)

4.6.4.- Consolidation Matrix

The consolidation matrix integrates the dimensions of urgency, legitimacy, and power to obtain the preponderance index. The quantification of attributes is normalized based on comparisons of stakeholder groups in digital services (see Table 9).

Table 9. *Consolitation Matrix*

	Power Degree		Legitimacy Degree		Urgency Degree		Total	Preponderance Index
Stakeholder Group	Total	Normalized	Total	Normalized	Total	Normalized		
Companies	78732	6,73	9	1,69	9	1,96	22,20	8,79
Investors	1944	0,17	3	0,56	9	1,96	0,18	0,07
Universities	486	0,04	6	1,13	2	0,43	0,02	0,01
Institutes	486	0,04	6	1,13	2	0,43	0,02	0,01
Government	5832	0,50	9	1,69	1	0,22	0,18	0,07
Financial Entities (Banks)	23328	1,99	6	1,13	9	1,96	4,39	1,74
Financial Entities (Cooperatives)	23328	1,99	6	1,13	9	1,96	4,39	1,74
NGO´s	324	0,03	6	1,13	1	0,22	0,01	0,00
Unions	324	0,03	2	0,38	1	0,22	0,00	0,00
Clients	13122	1,12	9	1,69	9	1,96	3,70	1,46
Digital	4374	0,37	3	0,56	3	0,65	0,14	0,05

Marketing Professionals								
Influencers	4374	0,37	3	0,56	3	0,65	0,14	0,05
Content creators	4374	0,37	3	0,56	1	0,22	0,05	0,02
Web developers	13122	1,12	6	1,13	9	1,96	2,47	0,98
Graphic Designers	1458	0,12	3	0,56	1	0,22	0,02	0,01
Total	175.608,00		80,00		69,00		37,89	
Average	11.707,20		5,33		4,60		2,53	

Note. Adapted from the Mitchell, Agle and Wood model (1997)

The quantification of stakeholders according to the consolidation matrix was obtained by summing and averaging the stakeholder groups and then dividing to achieve normalization (e.g., 78,732 for companies / average of 11,707.20 for stakeholders = 6.73). The same process was applied to each stakeholder group and the dimensions of legitimacy and urgency. Finally, the three normalized dimensions were multiplied, summed, and averaged to conclude with the preponderance index (e.g., 6.73 * 1.69 * 1.96 = 22.20 / 2.53 = 8.79 for companies involved in the digital market, providing a definitive stakeholder attribute).

4.6.5.- Stakeholder Classification

Stakeholder classification allows for assessing the influence of each participant in the role of digital services. It is divided into three dimensions: latent, expectant, and definitive, which are associated with the variables of power, urgency, and legitimacy. (See Table 10)

Table 10. *Stakeholder classification*

Stakeholder	Attributes
Latent	
Potential Latent	Power
Demanding Latent	Urgency
Discretionary Latent	Legitimacy
Expectant	
Dependent Expectant	Legitimacy and Urgency
Dominant Expectant	Power and Legitimacy
Dangerous Expectant	Power and Urgency
Definitive	Power, Legitimacy, and Urgency

Note. Adapted from the Mitchell, Agle and Wood model (1997)

The table illustrates the attributes used to relate to the stakeholder classification based on their level of importance for the study. (See Table 11)

Table 11. *Stakeholder classification results*

Interest Group	Category	identification
Companies	Definitive	1
Investors	Discretionary	2
Universities	Discretionary	3
Institutes	Discretionary	4
Government	Discretionary	5
Financial Entities (Banks)	Latent	6
Financial Entities (Cooperatives)	Latent	7
NGOs	Non-Stakeholders	8
Unions	Non-Stakeholders	9
Clients	Demanding	10
Digital Marketing Professionals	Dominant	11
Influencers	Discretionary	12
Content Creators	Discretionary	13
Web Developers	Dominant	14
Graphic Designers	Discretionary	15

Note. Adapted from the Mitchell, Agle and Wood model (1997)

The stakeholder classification is based on the categories of the dimensions of power, legitimacy, and urgency, encompassing various elements such as definitive, dominant, discretionary, dependent, potential, demanding, and latent (which are not considered stakeholders of digital services). For the study, NGOs and unions were classified as latent, while companies were definitive. Investors, universities, government, content creators, graphic designers, and influencers were classified as discretionary. Financial institutions were latent, clients were demanding, and web developers and digital marketing professionals were dominant. (See Figure 2)

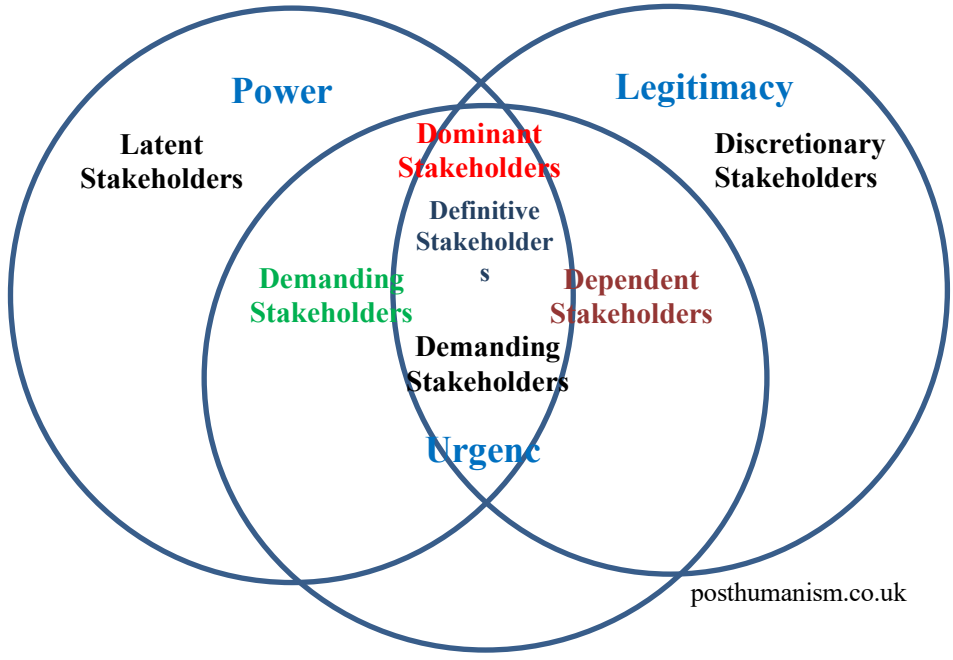

Figure 2. Graphical classification of stakeholders
Note. Adapted from the Mitchell, Agle, and Wood model (1997) (p 874)

The figure presents the classification of stakeholders based on the Mitchell, Agle, and Wood model from 1997, which outlined the attributes of power groups in relation to the elements of power, legitimacy, and urgency. Within this model, there are seven categories: dominant, latent, demanding, dependent, definitive, and discretionary. (See Figure 3).

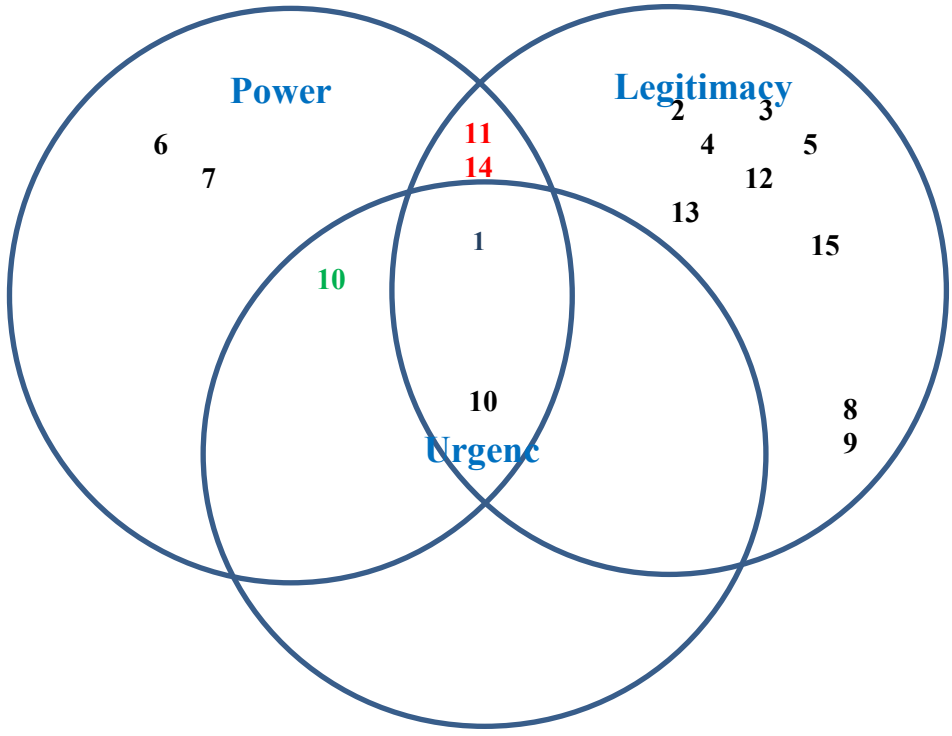

Figure 1. *Graphical classification of stakeholders from the study*
Note. Adapted from the Mitchell, Agle and Wood model (1997) p.874
Figure 3 graphically illustrates the results obtained from applying the Mitchell, Agle, and Wood model for the quantitative identification of stakeholder groups in digital services.

5.- Discussion

The research highlights how the digital revolution has transformed the global economy, giving rise to a connected economy based on digital platforms. The success of digital services is characterized by the mobility of companies, the use of intangible assets, and the adoption of cutting-edge technology. These aspects have enabled data monetization, online advertising sales, and the use of e-commerce platforms (B2B, B2C, C2B, C2C). Consequently, digital services reduce transaction costs and leverage information generated on platforms to optimize resources and business decision-making.

In this context, the identification and classification of stakeholders in digital services using the Mitchell, Agle, and Wood model reveal a complex network of actors with varying levels of influence, legitimacy, and urgency. Identifying stakeholders is a challenge, as their relevance is not always clear to companies. Proper identification and assessment of their degree of influence allow for the development of effective business strategies.

The research demonstrates that companies and financial institutions position themselves as the actors with the greatest power and influence in the digital market, as they concentrate significant technological, economic, and material resources. This finding confirms that companies are investing in ICT, hardware, and conducting business through e-commerce and social media to deliver efficient and secure services to consumers. Likewise, it shows that without financial institutions, digital services would not exist, as their IT systems enable secure, fast, and agile payments and collections.

As stakeholders with high urgency, customers were identified, reflecting their critical role as drivers of rapid responses to their demands in an environment characterized by immediacy and service personalization. Universities, institutes, influencers, content creators, and graphic designers were classified as discretionary stakeholders, meaning they have legitimacy but lack significant power or urgency. While their contribution is relevant, their ability to directly influence the decisions of the main actors in this sector is limited. Finally, the exclusion of unions as relevant stakeholders in this new, increasingly corporate and technology-driven economic model raises questions about their participation in the digital debate and their capacity for representation.

Ultimately, the identification and classification of stakeholders in the realm of digital services allowed for the establishment of the model and demonstrated a significant dependence of companies on certain key actors, primarily investors, financial institutions, and customers. While this dependency can be a strength in terms of strategic focus, it also represents a vulnerability if the risks associated with the volatility of the digital environment are not properly managed.

6.- C**onclusions**

This research enabled the identification and classification of key stakeholders in the field of digital services. The results demonstrate that the Mitchell, Agle, and Wood model is a useful and effective tool for prioritizing stakeholders, as it determined the importance of certain groups in terms of power, legitimacy, and urgency. Additionally, the characterization of stakeholders revealed that, in the digital services ecosystem in Ecuador, external stakeholders represent the majority (64.71%) compared to internal stakeholders (35.29%). This implies that companies offering digital services must prioritize negotiations with these external groups to mitigate risks in the digital market.

Digital service is a technological resource capable of functioning within a business system to maximize value for all stakeholders in this business model, aiming to reduce costs and optimize services by leveraging digital transformation. However, the research clearly indicates that companies must accelerate their digital efforts; otherwise, they will be unable to meet the growing demands of consumers. Recommendations focus on building trust, increasing collaboration, and using cutting-edge technology to create a seamless, secure, fast, and effortless user experience.

This research explored digital services and identified their main internal and external

stakeholders. These stakeholders include companies, customers, universities, IT administration, government, designers, web development staff, and financial institutions, all of which have different requirements for the provision of digital services. However, the primary finding is that companies and financial institutions exert a high degree of power in the digital economy, as evidenced by the power matrix. This is due to their continuous investment in virtual platforms, increasing presence on social media, and facilitation of banking services for online purchases, positioning them as actors with maximum influence.

Many stakeholders expect digital services to function as a platform for research, education, or service development and to support interdisciplinary research. For this reason, the possibility is left open to include the educational sector in this field so that future generations mastering digital services can propose new ideas in both the educational sphere, such as creating new academic programs, and the business sphere, such as generating new business ideas.

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