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Is the Timber Construction Sector Prepared for E-Commerce via Instagram®? A Perspective from Brazil

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Abstract: Timber construction is a contemporary solution where sales are performed through in-store trade. Timber house e-commerce may stimulate global markets, and in times of intense remote routines, it is useful to improve the performance of the wood and construction sectors. Timber housing producers and dealers are the research object under analysis to study the electronic market of this Brazilian sector on Instagram®. With just over four hundred companies, nearly 80% of this sector already utilizes this virtual social network. We validated the outcomes through a significant sampling of all 315 companies with corporate profiles to identify their competences, goals, and failures. The profiles prioritize the elucidation of products and basic features, not yet being ready for the virtual sales of timber houses. The study makes it clear that our results typify a sector marked by a developing electronic market. Inserting a description of product prices and detailed specifications may change this status. From failures and competences, a classification for social profiles was proposed to measure the progress and virtual participation of each individual.

Keywords: timber house; construction market; sectoral survey; wood promotion

1. Introduction

Changes in societies require strategic corporate decision making through formal means that symbolize market research to acquire accurate information about clients and markets [1]. These studies are important tools to analyze the market reality and commercial potential of all sectors. Philip and Williams [2] verified that even small and micro-businesses depend on an increasingly digital economy.

A variety of functions composes marketing studies such as the generation of market data and information for decision-making processes, the definition of strategic directions, identification of risks and opportunities, and others [3]. Therefore, different roles may add alternative functions, such as analyses of services and goods, prospections of potential markets through innovative products, projections about emerging markets and consumptions, proposition of developmental strategies, characterization of present and potential customers, development of commercialization channels, and others [4–6].

As for the market channels, there are studies on: virtual markets for businesses [7–9], virtual markets for agricultural commodities [10], new instruments to develop startup

markets [11], and new products from digital and sustainable trends [12]. Sectors still demand studies to assist the transition from in-store to the virtual level in order to increase sales through websites and social profiles.

Timber Construction and the Demand about its Electronic Market

Wood has great potential to become a key material for future bio-economy due to its intrinsic renewability and capacity to store carbon dioxide, as stated by Panzarasa and Burgert [13] and [14,15]. Woody species and materials are numerous as confirmed by De Araujo et al. [16,17], Knauf [18], and Gouveia et al. [19]. Hardwoods are efficient for structural ends, as proved by Wolenski et al. [20] and Marcolin et al. [21]. Hence, wood has been widely studied, and the main topics include new products and composites, chemistry and physical–mechanical evaluation for construction applications [22]. Timber buildings are solutions structurally composed of woods with native or silvicultural origins, whose bioresources are applied in the form of wooden logs, lumber, machined timber, and/or engineered wood products (panels and beams) [16,17]. Thereby, these bioresources have enabled the edification of timber-based heavy skeletons and lightweight framings, which may be covered by different wooden materials, masonry, glass, and other construction materials [23].

Therefore, timber buildings have been gaining increasing global attention since some authors, for example, De Araujo et al. [23,24], Petruch and Walcher [25], Toivonen et al. [26], and Jussila et al. [27], have confirmed its up-and-coming market status. Other relevant studies discuss construction supplies [16,28–30], identification of different timber construction techniques [31–35], forecasts of market trends [36–38], and evaluations of market potential for specific construction techniques [39–41].

In contrast, perspectives on electronic markets are somewhat sparse related to timber forest products. In fact, the virtual market may represent an important electronic means for products and services to elucidate their vocations and uses, publicize their benefits and features, and establish distance commerce. Thus, electronic market studies are convenient due to the distinct moment in the socioeconomic–environmental outlook caused by the global pandemic and respective restrictions on society and the losses incurred in mercantile networks. Internet websites and social-network profiles have been the main alternatives for the virtual presentation of corporations to their current and future clients; however, the waiver of maintenance costs for social profiles boosts their popularity on websites.

Formed by companies of different sizes and technologies, the Brazilian construction sector was directly impacted by the global crisis in the 2020s [42]; the pandemic's impact was also nationally confirmed by Baqui et al. [43], Bartik et al. [44], and others. Regarding timber housing, the Brazilian sector is more vulnerable than the construction industry in general since this specific activity is predominated by compact-to-medium-sized companies, as examined by De Araujo et al. [45], being driven by visible commerce as observed by De Araujo et al. [23]. In fact, these smaller businesses are more prone to crises due to weaknesses in the market and finance justified by lower technical skills to predict setbacks.

In view of the difficulties and opportunities cited, this study evaluates the electronic market of timber houses to characterize the market scenario in Brazil, using the identification of failures and competences in products as well as business perspectives to propose strategic directions. Due to the global popularity of Instagram®, this exploratory study evaluated the available corporate profiles of identified Brazilian developers. Thus, the study sought to prove the weak virtual participation in this social network of timber house developers.

2. Materials and Methods

2.1. Delimitation of Virtual Platforms to Collect Data

The study aims to take advantage of virtual environments to obtain data for specific audiences' eager for affirmative responses adapted to the problems suffered. The strategy includes a comprehensive exploratory study about the Brazilian perspective. Different

initiatives have been favorable to ensure propositions from the virtual methodologies. De Araujo et al. [16,17,23,24,33–35,45–47] have reached representative findings, in these and other publications, by means of sectoral surveys driven by prospections in the corporate websites from internet to characterize timber housing activity under different aspects.

In parallel, new virtual platforms became popular in the commercial space such as the Instagram®, whose solution allows the disclosure of audio–visual–textual contents in corporate profiles of any segments. This decision also disregarded the Facebook®, as this social network is strongly focused on personal profiles. Thus, this study should identify and evaluate corporate profiles available on Instagram®, as well as the respective contents related to timber housing products for the Brazilian perspective.

2.2. Company Prospection through Corporate Profile Selection on Instagram®

The initial stage of this research involved the identification of Brazilian companies directed to timber housing production or market, specifically, with available and active profiles on Instagram®. This process included typing, by the search engine system, of specific terms about the vocations of this sector under analysis (Table 1); this process also included the consideration of respective plural terms.

Table 1. Keywords considered in the prospection of corporate profiles on Instagram®.

Specificity	Considered Term
General contents	Timber house, wooden construction, timber housing, green wooden building, sustainable wooden building, prefabricated kit, prefabricated wooden building, prefabricated timber, prefabricated wooden house, dry wooden construction
Building techniques	Light-woodframe, log-home, post-and-beam, half-timbered frame, CLT-based building, modular building, clapboard and wainscot, floating wooden house, wooden chalet

The results of the searching process on Instagram® demonstrated a considerable volume of companies, which are detailed in the initial section of the research results. This broad corporate representation justified the consideration of this social network for the analysis. From the prospection focused on the Brazilian territory, the authors observed the selected profiles. Specifically, this random procedure considered all profiles identified as dealers and/or producers of timber housing. However, the procedure disregarded every corporate profile focused on timber inns and hotels, timber housing rentals, timber chalets for accommodations, timber-building enthusiasts, and specialists in other types of buildings (produced with other non-woody materials). The final company listing considered the convenient data, recording it in electronic sheets of Microsoft Excel 2010®. In addition, rigorous repetition of considerations disregarded dozen social profiles—being characterized by repetitions and non-compliance with the scope.

2.3. Survey, Query Delineation and Justification for Sectoral Evaluation and Statistical Analysis

All corporate profiles previously selected were evaluated using different aspects as a strategy to identify the current scenario and test the hypothesis from multiple contents. For this evaluation, seven questions were outlined and justified to investigate the profiles on Instagram® and characterize the present moment of the electronic market of the timber housing sector in Brazil (Table 2), whose manifestations in photos, videos, and texts were the means analyzed to identify realities and phenomena.

Table 2. Questions and aspects under evaluation in this exploratory survey.

Question	Justification	Alternative
Query 1: investigate the information described on each profile biography	Analyze the initial communication to clients by means of all objectives and data declared in each profile	Company's name; direction; service region; website address; production data; electronic contacts (e-mails); phone contacts; products; services.
Query 2: investigate the different types of contact with clients described on each profile	Analyze the use and description of different communication channels to establish contact with clients	Website address; mobile number; WhatsApp® contact; wire-line phone number; Facebook® page; Youtube® profile; e-mail; No data.
Query 3: investigate the declaration of company direction of each profile	Analyze the declaration of company location and direction for clients	Full direction (street, number, city); State; City; No data.
Query 4: investigate the contents of posts (texts, videos and photos)	Analyze the corporate decisions in the posts and respective contents	Inconveniencies (plagiarism, kids, animals, people, etc.); completed buildings; buildings in progress; infrastructures (plants, headquarters, etc.); work teams (building sites, offices, plants, etc.); institutional posts; absence of posts.
Query 5: investigate as each profile discloses the timber house projects	Analyze the forms of presentation of timber house designs (developed and in progress)	Floor plans; electronic mockups; rendered mockups; no project.
Query 6: investigate the presence of timber house pricing in each profile	Analyze the presentation of pricing (products and services) contained in the profile publications	Prices in different products; specific promotional prices; no price.
Query 7: investigate the features of the profile model	Analyze the general presentation of each profile and classify it through available contents	Personal profile; amateur profile; semi-professional profile; professional profile; super-professional profile.

Questions 6 and 7 required the selection of singular responses per profile, whereas other queries (1, 2, 3, 4 and 5) allowed multiple answers.

For a significant sampling, all profiles were subject to the possible evaluation in this exploratory survey, as this study sought to understand the current scenario of the electronic market of timber housing producers and dealers located in Brazil. Sequentially, the margin of error calculation was the statistical instrument under consideration to validate the results from sampling process size, that is, the number of sampled individuals (companies with Instagram® profiles) and the entire national sector (all members, regardless of the presence of profiles). Raosoft® statistical software (Raosoft Inc., Seattle, United States, 2004 version) enables this statistical verification. For this process, 95% confidence level and 50% response distribution were parameters prescribed by Raosoft [48]. Obtained values were compared to the literature.

2.4. Proposal of Classification for Corporate Profiles on Instagram®

Through the panorama obtained in the different scopes under consideration, described in Table 2, the final stage was designed to suggest possibilities and ways to improve corporate profiles and, thus, support the greater attraction of new clients for the Brazilian timber housing construction market. This initiative agrees with the assertive suggestion raised by Heräjärvi et al. [49], where the market opportunities may resolve different key challenges towards wood and wooden products in the circular economy.

From fails and competences evaluated in queries 1 to 6 (Table 2), query 7 proposes a classification to measure the development status of each profile, as identified in Table 3. The author's observations drive this progress through the classification. For such, this proposal sorted profiles into five main categories listed as the possible alternatives of query 7 (Table 2). Each category was organized with its respective group of minimum

characteristics, which include: content objectivity and depth, publication formatting and organizing, formatting and typing failures, photo framing and quality, and presence of inappropriate posts and inadequacies unrelated to company goals.

Table 3. Features and attributions to classify profiles using authors' observations tested in query 7.

Profile Type	Features under Consideration during the Observation
Super Professional	Complete contents, detailed corporate information, synthetic texts, framed photos with visual quality, and absence of errors and inadequacies
Professional	Satisfactory contents, detailed corporate information, synthetic texts, framed photos with visual quality, and absence of errors and inadequacies
Semi Professional	Basic contents, superficial corporate information, generic texts, photos with some visual quality, and presence of few errors and inadequacies
Amateur	Scarce contents, superficial corporate information, textual clutters, photos without visual quality, and excessive presence of errors and inadequacies
Personal	Absent contents and corporate information, photos without visual quality, excessive presence of errors and inadequacies, and personal publications

3. Results and Discussion

3.1. Company Prospection, Sectoral Sampling, and Statistical Analysis

In the most recent study on the Brazilian timber-housing sector, De Araujo et al. [24] listed 378 companies directly related to production and market. Comparatively, there is an increase of almost 7% in this sectoral population for the 2021 period (Table 4).

Table 4. Prospection and sampling of the Brazilian timber housing sector.

Population in 2021	Unitary Volume (Companies)	Sectoral Percentage (%)	Margin of Error (%)
Companies prospected	402	100	–
Companies in Instagram®	315	78	±2.57

The sampling was perceptibly significant, as it considered all companies with profiles on Instagram®, whose sum includes 80% of the entire sector (Table 4). In practice, our study outperformed the recent market contributions with relevant samples driven by interviews such as Arnold et al. [50], Bıçakcıoğlu-Peynirci and Tanyeri [51], Dhaundiyal and Coughlan [52], Fan et al. [53], Förster et al. [54], Le et al. [55], Mukti et al. [56], Padilla-Lozano and Collazzo [57], Saabye et al. [58], Schnurr et al. [59], and others.

The margin of error for this survey sampling satisfies the expectations (Table 4) since it aligns with the ideal level of 5.00% (±2.50%), as suggested by Pinheiro et al. [60]. The error of ±2.57% corresponds to a single company for the entire sector. Therefore, the satisfaction of literature prescriptions and the significant sampling performance were the effective conditions to validate outcomes under statistical support.

3.2. Sectoral Evaluation Using Aspects and Contents of Corporate Profiles on Instagram®

This study raises a broad perspective due to the plural approach (Table 2) and expressive sampling (Table 4). This performance may evince a representative scenario of the corporate profiles of the Brazilian timber-housing producers and dealers, whereas our objectives included different scopes to identify the contents shared with clients and to characterize the condition of the electronic markets of this domestic sector (Figures 1–6). The notable presence in this social platform is profitable to the studied sector (Table 4), as Lambin [61] verified that internet technology increases the geographical market size of companies with virtual channels.
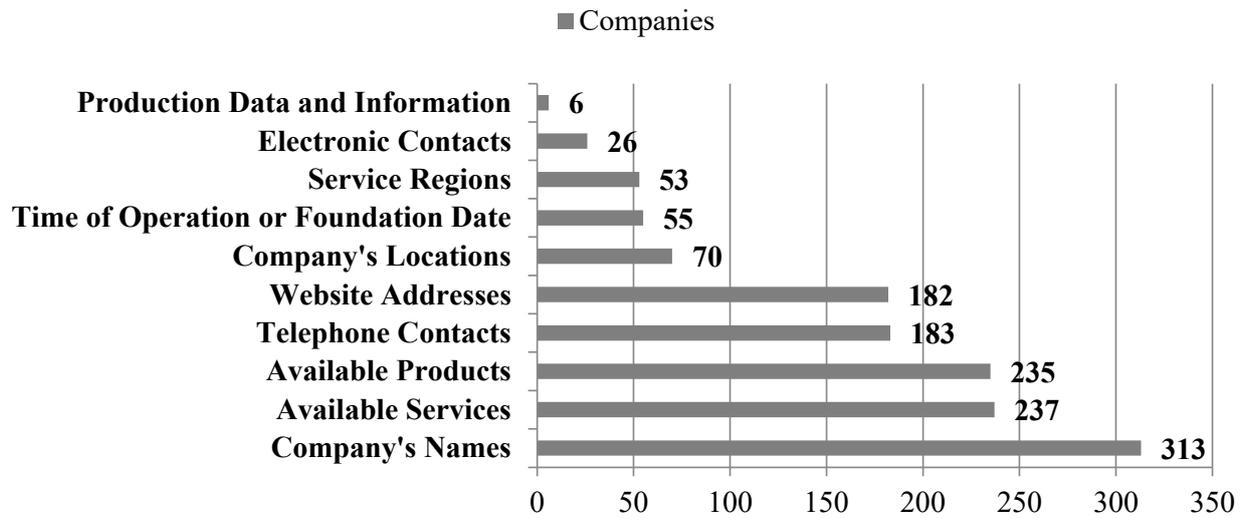
Figure 1. Query 1: types of information declared on biographies of corporate profiles (n = 315).
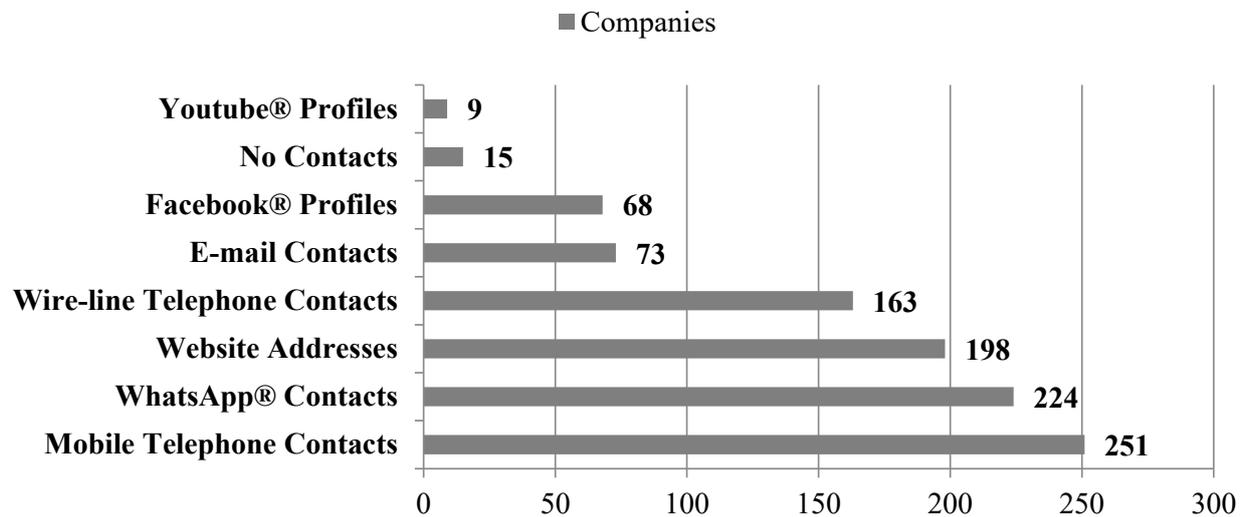

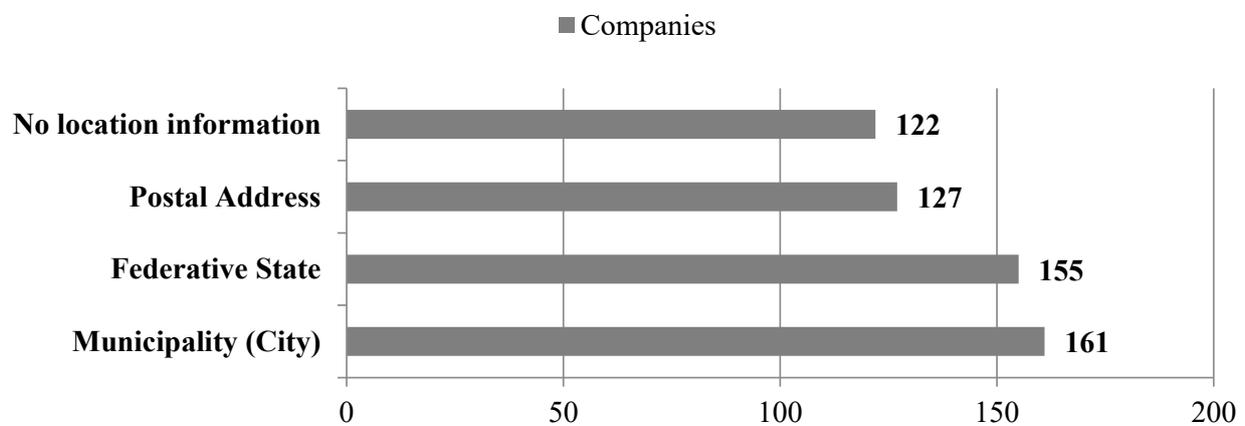**Figure 2.** Query 2: information of forms of contact declared in the profile publications (n = 315).

Figure 3. Query 3: information of addresses declared in the profile publications (n = 315).
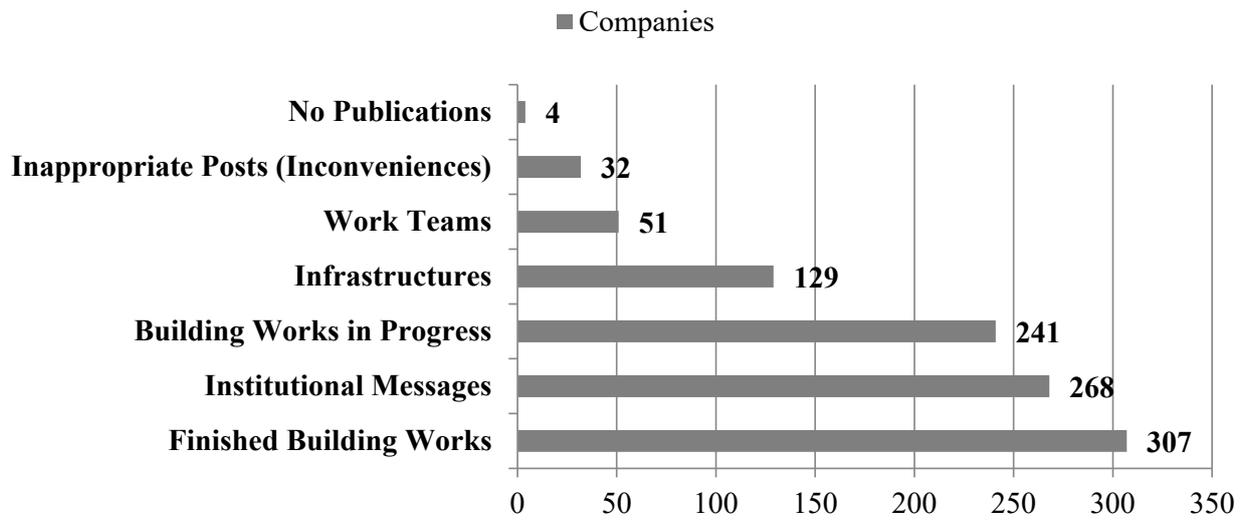
Figure 4. Query 4: content types identified in the profile publications (n = 315).
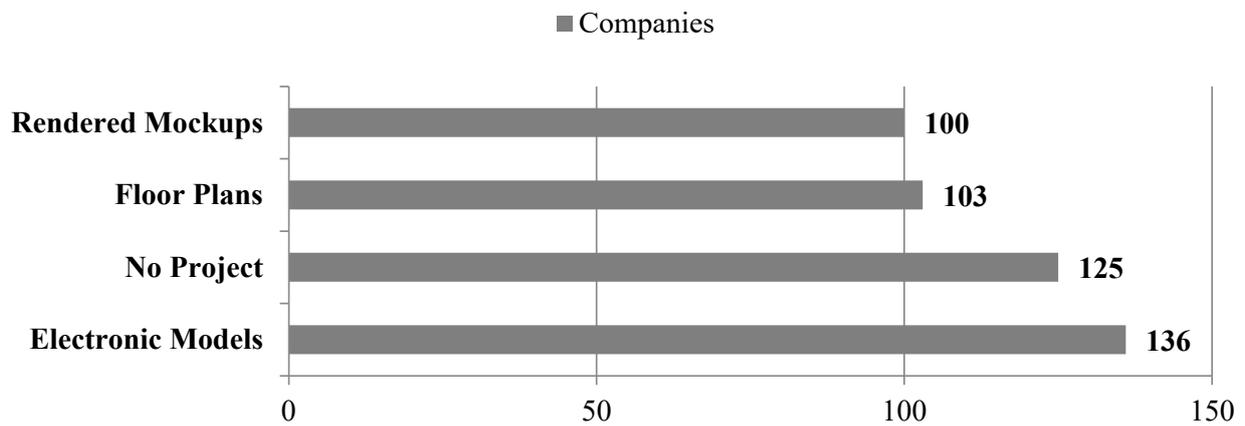

Figure 5. Query 5: types of building projects identified in the profile publications (n = 315).
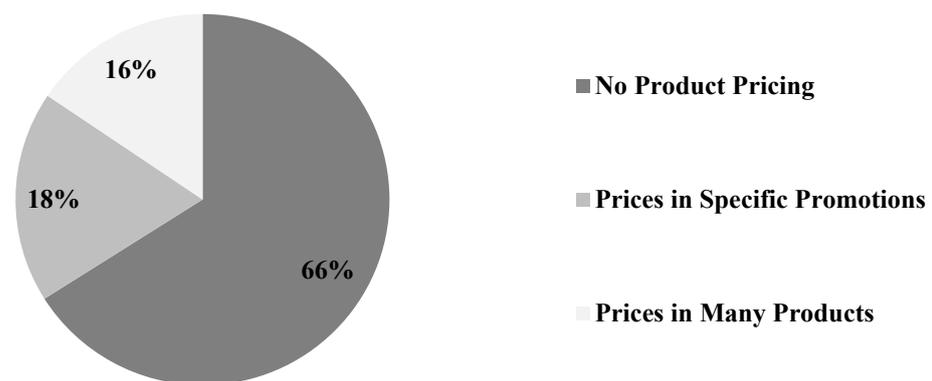
Figure 6. Query 6: types of product pricing identified in the profile publications (n = 315).

The first question evaluates all contents available in the biographies of these profiles. Surprisingly, the absence of one or more basic data was present in sampled individuals (companies), and no item reached a condition of 100% of the population (Figure 1). For example, 2 of 315 companies do not reveal their names in their biography contents. This failure reflects certain negligence about the positioning of their brands for clients.

Still in the scope of biographical contents in the sampled profiles, practically 75% (±2.57%) of this sampling includes the description of products and services. Thus, another

one-third parcel does not clarify their respective corporate activities. About 17% of profiles reported the time of market operation, whose information includes the disclosure of foundation dates and/or times of operation (Figure 1). Longer-lived institutions utilize this choice as leading information to justify their market capabilities and experiences.

Timidly, almost 2% of companies declare any type of production data through the disclosure of houses sold, produced goods and/or services provided (Figure 1). The lack of marketing purposes described in the biographies limits a clear understanding on the part of the clients with respect to the effective corporate objectives. The clarity of services and products is important, as Lambin [61] stated that virtual markets serve as great ways for consumers to find solutions and product information.

In a clearly questionable strategy, only 58% of profiles share their phone numbers and website addresses in their respective biographies. Still, only 8% of sampled profiles share their e-mails to establish electronic contacts with clients (Figure 1). The omission of electronic and telephone means suggests a certain indifference of some organizations in enabling formal communications to start the product clarification and selling processes. There are alternatives of contact using internal and external messages on the Instagram® platform, but these forms cannot be effective and formal and, therefore, the absence of e-mails and phones can generate negative perceptions and possible market losses. For example, Kanovska [62] described that, for an important corporate role, there is the need to maintain permanent mutual contacts with clients through posts (printed or electronic), e-mail messages and/or internet pages.

Another gap includes the evident lack of directions of companies on the biography descriptions since just over 22% of the sampled profiles freely declare these data. The description of the location is essential to clients, as they may know about the origin of companies and, occasionally, visit their service offices, headquarters and even their points of sale. This suppression may raise suspicions about corporate activities on the part of more fearful clients. With respect to service region, the scenario is more inadequate as it covers only 16% of studied corporations, as verified in Figure 1. Thus, the suppression of this information may discourage any potential customer on the service capabilities and availabilities of companies to deliver products for different and/or distant regions. An explicit statement from the corporations about their forms of contact and locations was expected indeed, but profuse gaps were clearly identified (Figure 1). Given the negative outlook, the authors opted for the data reassessment as a strategy to specify this analysis.

From the posts on sampled profiles, all forms of contact are verified (Figure 2) and types of location are confirmed (Figure 3) to complete the biography data. In the forms to contact the clients (Figure 2), 80% of profiles declare freely their mobile phones in one or more posts, and about 70% report their communications by WhatsApp®. In addition, more than 51% of samples share their wire-line phones.

In the electronic scope, almost 63% of sampled population share respective website addresses to stimulate the possibilities of contact and clarification of products to clients. Additionally, only 23% of companies inform their electronic contacts (Figure 2), that is, corporate e-mail addresses.

About social networks, 22% of profiles specify their electronic pages on Facebook®, and only 3% of the sampling discloses their profiles on Youtube® with the aim of establishing audio–visual communications. About 5% of the studied population does not declare any form of contact in the publications shared on profiles (Figure 2). Surprisingly, this small group only communicates via Instagram®. There is an expectation for a greater formal declaration of basic information since our society is living the growing use of virtual tools and social networks, as described by Kemi [63], Isachenko [64], Naikoo et al. [65], and other authors.

From another perspective, 61% (±2.57%) of the analyzed population share publications with the formal declaration of company address, while the remaining 39% still disregard any references to this purpose on publications. Specifically, 51% of profiles reveal their city

locations, 49% indicate their federative states, and 40% detail their postal addresses given by streets, numbers and other details (Figure 3).

The declaration of company addresses is more consistent in publications (Figures 2 and 3) than in biographies (Figure 1). Nevertheless, the formal presentation of corporate contacts in the biography sections may be a more effective alternative, as the biographical items are evident in the initial access of each Instagram® profile. In contrast, the description of contacts using publications must require access to every publication under a random searching process—this practice helps in the process of searching for company contacts.

In turn, the publication contents identified in the profiles show several approaches, as identified in Figure 4. The exhibition of photos of the finished building works is the most frequent content posted, specifically in practically 97% of profiles. About building works in progress, these photographic representations are disclosed by almost 77% of the population. Figure 4 confirms the expectation of higher popularities since the portraits of building works include necessary ways to promote and sell products materialized in the timber houses.

Given tips for product usage, explanations about products and services, date celebrations, congratulations, events, messages about opening hours and working days, restrictions about pandemics and other messages, these institutional contents include about 85% of publications, which symbolize a requested topic (Figure 4).

As a strategy to elucidate corporate facilities, about 40% of profiles visually elucidate their infrastructures such as headquarters, offices, subsidiaries, manufacturing plants, etc. In addition, 16% of sampled companies identify their work teams in such physical spaces (Figure 4).

Around 10% of profiles disclose some type of inappropriate post (Figure 4), whose inconveniences include, for example, personal and/or family photographs, party e-fliers and festive celebrations unrelated to the company, beverages and foods, animals, and, surprisingly, some plagiarisms verified by unauthorized photos and contents from direct competitors. Still in this analysis (Figure 4), more than 1% of profiles did not publish any posts. Unfortunately, both situations are negative and discredit the image of these few corporations and brands by the consumers, as these attitudes can create certain business negligence and/or disinterest.

Simultaneously with photographs of the completed works and progress (Figure 4), corporate profiles disclose images and contents of technical projects related to timber houses, and Figure 5 specifies these types. While 60% of all companies decide to share their electronic projects (Figure 5), either specifically or widely, the remaining 40% of this sampling refrain from posting contents about ongoing and finished buildings. The project customization and unauthorized copying of construction projects by competitors may influence this expressive absence.

Regarding the specific presentation of these projects of timber houses (Figure 5), 43% of all profiles include electronic models, 33% disclose floor plans of projects, and 32% of results exhibit rendered mockups designed in humanized quality with numerous details. Certainly, there is the expectation of timid percentages, basically, due to tactics related to industrial privacies—a booster way may include, according to Matsuda et al. [66], the creation of electronic folders and detailed product fliers and virtualized supply systems.

Pricing products and services through a clear presentation to customers are important marketing strategies. Thus, Figure 6 describes the scenario of pricing strategy in the publications of sampled profiles on Instagram®.

Only 34% of profiles disclose prices on their products and services, either specifically or widely. The positive scenario evinces similar proportions, under the margin of error of ±2.57%, for prices in specific promotions and prices in many products. Negatively, two-thirds of all sampled profiles do not reveal any pricing in their posted publications (Figure 6). It typified an obscure decision for the clients, as timber houses are higher-value durable goods. Thus, the status of virtual sales of timber housing in Brazil is weak in the

Instagram® social network, since the present evaluation identified no virtual space for construction trading.

While corporate profiles may suggest an intense electronic market of timber housing in Brazil, in view of many features of sampled profiles (Figures 1 and 4), the status denotes that these companies are not yet ready for virtual sales. This perception is justified by the expressive non-pricing of products and services in these profiles, as shown in Figure 6. Thus, there are necessary changes to establish the virtual sales—for example, the insertion of detailed specifications of every product and service and respective pricing of pre-fabricated standard timber houses, and estimations of custom projects of timber construction. In the case of customized projects with, the replication of systematization utilized by automakers to offer different options and accessories may represent a strong tool to price solutions for clients interested in timber houses.

3.3. Classification to Evaluate the Current Status of Corporate Profiles on Instagram®

Using the analyses for each previous item (Figures 1–6), a thorough subjective analysis evaluates all profiles to enable a corporate comparison. Supported by the authors' observations, this classification includes features to categorize profiles according to their competences and fails. Based on the categorization in visible subjective criteria (Table 3), almost half of the profiles showed a high level of perception (Figure 7), as indicated by the two relevant categories given by professional and super-professional profiles.
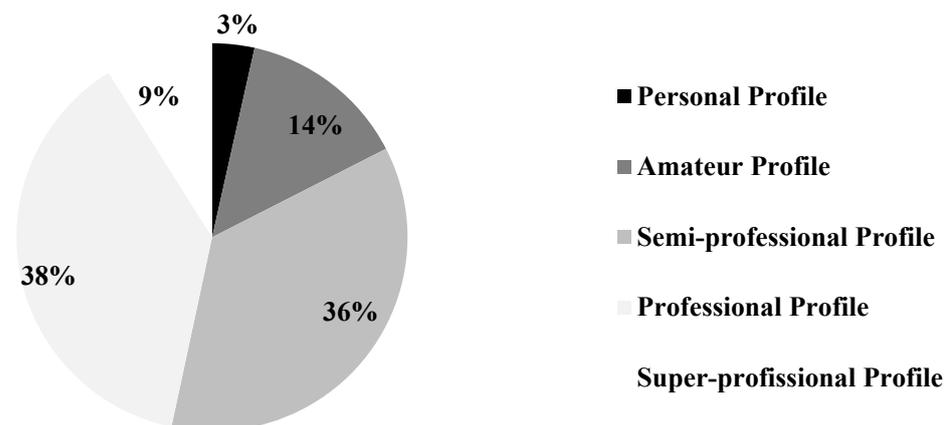
Figure 7. Query 7: corporate profiles classified according to contents and features (n = 315).

The remaining half showed the predominance of semi-professional profiles, which feature a simplistic organization and info-graphic content and generic texts. This panorama evinces the shows the ambition of companies to share a corporate image in order to try to attract new potential clients.

In contrast, 17% of all profiles are characterized as ineffective solutions and even with some negative charge in the presentation of content and posts (Figure 7). This small portion—which marked incident problems from a marketing view—needs a clear direction to define corporate objectives and eliminate public mistakes and inadequacies.

Given the above, Figure 7 shows a panorama featured by corporate profiles with different evolutionary stages based on diversified contents and strategic actions and features verified in the posts on the Instagram® platform (Figures 2–6). Thus, the representative analysis of Brazilian producers and dealers of timber houses (Table 3) also confirms the mature situation of many profiles specifically classified at the professional level (Figure 7), despite a very timid, or even non-existent, possibility of virtual sales.

The use of classification evinces the status of all sampled profiles, which suggests a potential stage for the sectoral development regarding the electronic market using profiles on the Instagram® platform. In line with observations of Möller and Törrönen [67] for the analysis per capability, the present sector may utilize the corporate capabilities and status,

observed in different perspectives (Figures 1–6), of how suitable that specific company is able to commercialize timber houses in the electronic markets.

Despite the implementation of information modeling as a driving strategy for future projects and manufacturers, civil construction still needs to develop its own virtual environments (Figure 7), whether in the in-store market and electronic commerce to end customers or even in miscellaneous fields. For this, there are ways to supply its sectoral modernization, such as tools for a greater connection among collaborators as proposed by Alvanchi et al. [68], and the inclusion of augmented reality in new building projects as defined by Delgado et al. [69].

Both suggestions may stimulate the timber housing market in nations deeply based on traditional masonry houses, such as Brazil, as far as a better visual representation of timber construction techniques may be reached.

In order to improve the present status of all sampled profiles, some strategies are suggested to correct fails, avoid inadequacies and solve the gaps identified by Figures 1–6, such as:

- The organized and complete statement of the data contained in the biography so that potential clients can truly know the company's name as well as corporate goals and merchandise, detailed locations and forms of contact for direct service;
- The disclosure of more detailed building projects so that clients visualize and analyze the available construction techniques and the lists of necessary materials and quantities per technique, included and not included services, possible technical limitations, main deadlines, and client obligations;
- The specification of prices for finished houses and cost estimates for custom projects to satisfy the expectations and curiosities of new clients and, with that, create and support the electronic markets to be developed by corporate profiles on Instagram®;
- For amateur profiles, there are suggestions to adapt publications by inserting photos of the working sites and buildings in superior quality, inserting images of complete projects, correcting textual contents, detailing corporate information, and eliminating errors and inadequacies.
- For personal profiles, new corporate profiles may be created with regular content and satisfactory quality, above all, without inadequacies and with content specifically about the company's goals and activities;
- There is the possibility to establish the regular management of their profiles by social-media and marketing professionals as managers and analysts;
- The performance of additional studies aligned with current and potential clients to identify their aspirations about the virtual markets of timber housing and their expectations about profiles through the scope of contents such as images, photographs, technical information and other clarifications.

4. Conclusions

Over three hundred profiles of timber house producers and dealers from Brazil are present on Instagram®, whose audience included a significant sampling process. The low standardization in the presentation of corporate information and profile contents were the main research obstacles. However, unprecedented outcomes evince the existence of numerous active profiles of timber housing developers in this social network, although no evidence proves the effective existence of electronic markets of this promising sector engaged towards more sustainable buildings.

Given the detailed scenario obtained for a developing sector marked by scarce data, the methodology in use provides a broad and significant perspective and the proposed classification contrasts the different evolutional stages of all corporate profiles. Thereby, these strategies may satisfy new analyses of electronic markets of different corporations through Instagram® profiles to identify and characterize other developing industry and innovative emerging sectors towards bioeconomy.

In this proposed evaluation, the biography on the initial section of each corporate profile is a fundamental space to share information, but most of the sampled companies may utilize this space more effectively. Basic information on corporation goals, locations, and main contacts is irregularly available for clients in the global scope. The observation reveals a lack of this information in the biography section of numerous companies. In addition, there is a more intense disclosure of telephone and smartphone contacts and addresses in the profile publications in relation to the nature observed in the biographies. However, the strategy used by the corporate profiles demands reflections and changes since the insertion of basic information, as their telephones and locations in the biographic section may facilitate the prospection and consultation of companies by interested people and potential clients. This strategic dissemination using biographical sections will reduce the time to identify, clearly and easily, the main details of corporations and products.

In practice, the profiles aim to disclose and exemplify the corporate works, plans and graphical models to elucidate the development of building projects, different types of institutional messages, business infrastructures, and work teams.

Therefore, the contents published with greater intensities and better organization in reference to technical details and specifications of products, frequency of publications and high-quality images and photos are mostly present in corporate profiles categorized in the super-professional and professional levels. In contrast, there is a confirmation of profile publications with contents contrary to the purposes of products and business goals and services, whose profiles are identified by personal and amateur labels.

It is noteworthy the small presence of pricing of products and services specified by the sampled profiles since the commercial value of any goods must be clearly described. This strategy allows each client to understand the solution cost and measure the product value and benefits according to options and functions, exclusivity and delivery, environmental advantages, use of renewable bioresources, production rationalization, aesthetic finishing, and architectural style. In practice, the absence of house pricing, either by specification or by estimation, is the most noticeable and common failure found in this survey. Both producers and dealers miss a clear opportunity to effectively create and develop the commercialization of timber houses through their virtual profiles.

Therefore, the Brazilian electronic market of timber houses led by these corporate profiles of producers and dealers available on the Instagram® platform is still at an incipient stage in the field of virtual sales, which proves the leading hypothesis tested. However, many companies manage to elucidate features and options of available timber houses as a strategy to create the first contact with possible clients through corporate profiles and, consecutively, try to commercialize products in their offices. In contrast, a small portion of the sector must improve profiles to organize contents and elucidate main goals and information in their biographical sections.

The development of the studied electronic market may consider the suggestions proposed in the discussion section to clarify the multiple uses and sustainable features of timber construction for housing as well as expand the sectoral competitiveness in Brazil. This sectoral scenario may be improved with greater disclosure of product pricing and specification synchronously with intense levels of organization of profiles and sequence of publications to exemplify possible projects and finished buildings.

Lastly, the authors recommend the methodology and proposed classification in consideration as an effective strategy to analyze the current stage of any electronic market, as they raised important outcomes for any sector still maturing and eager for sectoral data, such as modern sectors focused on sustainable bioproducts.

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