



'The Integration of Laudato Si' in Management Education: Forming Students with a Deeper Awareness of the Implications of Integral Ecology

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Abstract

Pope Francis' encyclical *Laudato Si'*, *On Care for Our Common Home* (2015), is a disruptive teaching document. It challenges contemporary paradigms and human social systems including education, economy and business to transform. *Laudato Si'*'s proposal of "Integral Ecology" bears significant implications for the business world, especially business management and business education. The importance of educating through the lens of *Laudato Si'* and Integral Ecology has been affirmed by several global initiatives and is an emerging focus for universities and academic research. However, higher education institutions and management programs seem to be slow to institute standards of sustainability, global responsibility, and social innovation (Wilp et al. 2022). Therefore, exploring how *Laudato Si'* can guide and accelerate the transformation of business education to be of service to the common good is of vital importance. We have conducted a literature review investigating the relationship and impact of *Laudato Si'* on educational programs provided by Business Schools. Furthermore, we developed a proposed survey tool intended to gather insights into whether graduate students after attending University Business Schools have developed attitudes that cohere with *Laudato Si'* and Integral Ecology. This tool might be particularly useful for universities that foster a Humanistic Management approach and Catholic institutions with a commitment to the pursuit of the common good. Results from the implementation of a survey tool of this kind will help to inform strategies to further embed the principles of Integral Ecology into programs offered by Business Schools.

Keywords *Laudato Si'* · Integral ecology · Business education · Business schools · Drucker's theory of business

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Introduction

Rationale for the Research

Pope Francis' encyclical *Laudato Si'*, *On Care for Our Common Home* (2015), is a disruptive teaching document; it challenges contemporary paradigms and human systems calling for profound changes in many areas of society and economic activity, including the business sector and its management. *Laudato Si'* "has already become the most quoted encyclical in history, garnering interest from a range of perspectives sacred and secular alike" (Briola 2020, p. 697).

Although *Laudato Si'* takes up several questions previously addressed within Catholic Social Thought, such as the exploitation of nature (LS 4), the call for 'global ecological conversion' in parallel with full respect for the human person (LS 5) and the need to correct models of growth (LS 6), *Laudato Si'* integrally synthesizes complex and diverse proposals for transformation. Pope Francis considers the interconnectedness of everything and the wisdom and knowledge from the Christian tradition with the best available natural and social scientific research. *Laudato Si'* critically provides an ethical, moral and spiritual vision that promotes integral pathways for action that are relevant to believers and non-believers alike.

Laudato Si' emphasizes the principle of interconnectedness and presents the novel central paradigmatic proposal of 'Integral Ecology'. The concept of Integral Ecology is based on the idea that "everything is closely interrelated" (LS 137) and that the solutions proposed for current problems need to recognize that there are not two separate crises, one social and the other environmental, but a "complex crisis which is both social and environmental." In this way, not only are the sources of multiple interconnected crises analyzed to reveal common human root causes but also the strategies, structures and human systems enacted are called to model integral social and ecological responsibility through the lens of Integral Ecology (LS 139).

Laudato Si''s proposal of Integral Ecology bears significant implications for the world of business especially in relation to business management and business education. Indeed, *Laudato Si'* calls for businesses to operate counter to the current drive for profit maximization (LS 195), and identifies an overarching goal, "directed to producing wealth and improving our world" (LS 129). In this way, various business practices and their socio-ecological impacts are called into question and urged to transform for the common good. Changing business practices and human behavior requires an awareness of Integral Ecology including "new convictions, attitudes and forms of life" (LS 202). Raising awareness of Integral Ecology represents a significant educational challenge. To achieve desired changes in business practices it is crucial to educate current and future managers and business professionals because these decision-makers play a pivotal role in influencing and motivating change of business practices towards an Integral Ecology.

Laudato Si' highlights the educational opportunities associated with promoting an ont-epistemological shift toward Integral Ecology. For example, educational initiatives will be crucial in changing consumption habits in countries experiencing extreme consumerism and affluence (LS 209); in critiquing the development of 'progress' particularly in the global south and in questioning the utilitarian mindset; in the development of an "ethics of ecology" allowing for "growth of solidarity, responsibility and compassionate care" (LS 210)

and in the promotion of “a new way of thinking about human beings, life, society and our relationship with nature” (LS 215). The importance of education for Integral Ecology has been affirmed by Vatican initiatives and is an emerging focus for universities and in academic literature. However, higher education institutions and management programs seem to be slow to institute standards of sustainability, global responsibility, and social innovation (Wilp et al. 2022). Therefore, exploring how *Laudato Si'* and the lens of Integral Ecology can guide, support and accelerate educational transformation is an area of valuable research.

Research Theme, Problem and Goals

It is in the business context that the educational efforts carried out by universities, and particularly their business schools, are to be explored in this proposed research. More specifically, this research seeks to understand student graduates' attitudes towards the proposals of *Laudato Si'* and Integral Ecology after attending Business Schools once they enter the workforce. This proposed research is seeking to uncover the extent to which recent graduates from University Business Schools developed attitudes that coincide with Catholic Social Teaching, particularly Integral Ecology and *Laudato Si'* in their business context.

This research aims to address the following question: What are the attitudes of graduate students, who have studied at Business Schools in the past ten years, and are now employed in a business context, in relation to the principles of *Laudato Si'*? Based on a literature review that investigates the relationship and impact of *Laudato Si'* on business schools and the education offered, and through developing the proposed survey, we intend to research attitudes towards the proposals of Integral Ecology and *Laudato Si'* of people who have completed undergraduate and/or postgraduate studies at a business school and who have entered the labor market.

The purpose of this research is to provide a proposed survey tool to gather insights about how the educational experiences of recent graduates of Business Schools have prepared them for realities of the business world in a manner that is coherent with the principles and values detailed in *Laudato Si'*. We are particularly interested in identifying aspects of business education that could be strengthened to offer business education in favor of the common good and integral care for all in our common home.

The Impact of *Laudato Si'* on Business Management Education

Novelty and Reception of the Encyclical Letter *Laudato Si'* on Care for Our Common Home

The message of *Laudato Si'*, referred by Briola (2020) as a social encyclical with a unique approach and radical vision of Catholic Social Teaching that “enshrined integral ecology as a new organizing and synthetic category for understanding the church's social mission today” (Briola 2020, p. 697; 715), presents disruptive elements that challenge contemporary paradigms in several areas of society and economic activity. In fact, as Garcés-Velástegui and Mora (2024) point out, with *Laudato Si'*, Francis changes the “independent focus on the environment and poverty to a recognition of the interdependence of these phenomena by arguing for a social ecology” (Garcés-Velástegui and Mora 2024, p. 19).

Moreover, Barrett and Duns (2023, pp. 264–266) consider that the concept of “integral ecology” presented in *Laudato Si’* “provides us with an agenda for a planetary virtue ethic (...)” and that *Laudato Si’* requires us to look at the current situation not only to recognize human impacts on creation but also to identify ways to reduce and repair this impact. This way, poor decisions flow from the failure to “see our interconnectedness with and dependence upon the planet’s sub-systems” (p. 270), which is applicable to business activity and management education too.

The reception of *Laudato Si’* has been neither straightforward nor consensual, both inside and outside the Catholic Church. Based on the literature, Hearn et al. (2024, p. 344) concluded that the encyclical led people with “prior high level of concern to take additional actions” but that this effect was not felt among conservatives. Even in relation to the reaction of the clergy of the Catholic Church itself, Wilkins (2022, p. 150) concludes that, despite the fact that it is a very hierarchical institution and that the encyclical deals with issues of great complexity of the present time, many clergy have chosen to do “little more than increased recycling and gardening”. In our view, this resistance is because *Laudato Si’* challenges ways of thinking, knowing, living and being, ultimately questioning current human and organizational systems that are often incompatible and unwilling to change.

Laudato Si’ has also been the target of criticism. For example, despite the widespread uptake of the expression “common home” as being connected to the attention and value given both to nature and to human beings, Varanda (2024) questions the adequacy and usefulness of this metaphor arguing that it can be “associated with the idea of a personal belonging that can be purchased” or serving as an “identitarian point of reference that distinguishes, separates, excludes, and confronts” (p. 3). In this way, Varanda (2024) proposes the use of “common life” to “characterize how humans inhabit the world (...) and to represent planetary and cosmic communion and interdependence” (p. 1).

Although Varanda’s (2024) question and argumentation are pertinent, the proposed alternative may entail the same type of weaknesses as the expression used by Francis. In fact, a “common life” can also exclude people and creatures who do not share that life. For example, the common life of a family or community versus the life of those who do not belong to it. On the other hand, although it is understood that there is a sense of possession in the expression “home”, this usually also involves an aspect of care, of preservation of something that is inhabited and lived within. Placing the possession aspect aside, it may not be contrary to the principles of Integral Ecology, if it is not read in isolation but rather considering the whole of *Laudato Si’*. In this way, the Earth also belongs to all creatures, not only to humans, while all humanity is responsible for taking care of something that is passed on. As such, the “Common Home” metaphor does not seem to be contrary to the recognition made by *Laudato Si’*, and which is pointed out by Varanda herself (2024, p. 10) as having “the intrinsic value of all creatures and the interdependence of all creatures”.

Kling et al. (2023, p. 107) also criticize aspects of *Laudato Si’* describing Pope Francis as someone who “(...) does not recognize that markets are the world’s most effective anti-poverty program”. These authors also argue that, in economic terms, the Pope calls for a “greater statism, increased interventionism and encumbered market exchange” that “are antithetical to ending poverty” (p. 107). However, as Negedu and Faruna (2024, p. 5) argue, what Francis stands for is that “it is not the free market in itself that is under attack but a kind of system that creates disequilibrium by deifying the free market to an absolutistic level”.

In fact, a detailed reading of *Laudato Si'* allows us to conclude that Francis emphasizes the importance of markets, referring to the right of access to regional and global markets by small farmers (LS 94; 129) and the need for market organization for the agricultural improvement of poor regions (LS 180). At the same time, Kling et al. (2023) argument about the call for greater statism clashes with Francis' references to the negative impacts that the State can have. Francis draws attention to how the State's instruments are used: "An instrumental way of reasoning, (...) is at work whether resources are allocated by the market or by state central planning" (LS 195).

In short, despite the criticisms presented (Varanda 2024; Kling et al. 2023), the issues of interdependence (Barrett and Duns 2023), the intrinsic value of all creatures (Varanda 2024) and the non-absolutization of markets (Negedu and Faruna 2024) are all essential elements of the proposal of Integral Ecology, considered relevant to management education oriented to *Laudato Si'* principles and imperatives. Thus, they have been included in the proposed survey tool presented in this paper (see for example, propositions listed as Item 12, 14 and 15).

The Integral Ecology Paradigm

At the heart of the message in *Laudato Si'* is the proposal of Integral Ecology. It is essential to understand this holistic paradigm and the call for transformative education and action. According to Varanda (2024, p. 11), the expression "Integral Ecology" was first introduced by Francis in the documents of the papal magisterium, even though the term previously existed as a scientific concept, whose introduction this author attributes to Hilary Moore in Moore 1958, in her work on "Marine Ecology". Integral Ecology may be considered to be an evolution of other approaches to ecology that have shown themselves to be limited and thus cannot be reduced "to preservationism (with the creation of ecological reserves to preserve species), or to conservationism (conservation, for example, of endangered species), or to environmentalism, which is easily reduced to the natural environment without taking into account that human beings are also part of this natural environment" (Varanda 2024, p. 11).

Referring to this integral approach, Negedu and Faruna (2024, p. 2) point out that "Francis maintains continuity with his predecessors' use of 'human and natural ecology', but they are now mutually embedded". The Integral Ecology concept implies that human beings take responsibility and act regarding the environment, caring for and protecting the Earth (Negedu and Faruna 2024, pp. 2–3). This concept is different from seeing 'nature' as an object to be manipulated, rooted in the phenomena of separation which is carefully analyzed in *Laudato Si'*, such as "rapidification, technocratic paradigm, too much anthropocentrism, morbid individualism and extractive economics" (p. 4).

The integral ecological approach of *Laudato Si'* "emphasizes a comprehensive connectedness that links environmental concerns with the traditional concerns of Catholic Social Teaching for the poor" and "involves joining together questions of justice, combating poverty, and protecting nature" (Negedu and Faruna 2024, p. 4). In the same way, the response to the metacrisis should also be an integral approach, since, as Negadu and Faruna point out, "a fragmented society stems from fragmented knowledge, and it is based on ignorance of what constitutes the whole" (Negedu and Faruna 2024, p. 5).

An integral ecological approach, which recognises the deeply enmeshed interrelationships of the various human and ecological systems, is opposed to a "capitalist technocratic

mindset that focuses on short-term economic profits and exploitative technological solutions that harm the environment” (Barrett and Duns 2023, p. 266). In addition to recognising the interrelationships of interdependence, the paradigm of Integral Ecology leads to the recognition of the value of all things as well as “the scope of everything that concerns the human: personal, religious, social, environmental, cultural, political, spiritual, and everyday life dimensions” (Varanda 2024, p. 10).

As a reflection of the interconnectedness and value of each and every one, Integral Ecology also implies the primacy of dialogue between everything including various sectors and at multiple levels, with the structural solutions being as important as the personal responses (Imanaka, 281: 690), and emphasizes the involvement of local communities particularly First Nations peoples (Barrett and Duns 2023, p. 278).

The very concept of Integral Ecology contains multiple dimensions, as Anyanwu (2024), pp. 54–56) describes:

- a) Social ecology refers to the relationship between all forms of life, human and non-human, and the link between social and natural systems. As any “environmental crisis is social at the same time”, responding to ecosystemic realities will always entail dealing with social and economic implications. One important aspect of social ecology is the recognition of the different dimensions of society, “from the family as the primary societal cell to the international community”, which reinforces the importance of institutional policies “for curbing injustice and violence that weakens social ecology”.
- b) Cultural ecology proposes the protection of cultural identity, “threatened by a ‘throw-away’ and cancel culture”. This highlights the importance of multilayered dimensions such as “native languages, customs, and architecture” for the flourishing of cultural identities and the originality of first peoples. The causes of ecological crises have devastating effects within cultural domains, such as “the consumerist mentality and the dangers of global uniformism”, and the importance of respect for local communities and their own involvement in responding to their realities.
- c) Human ecology connects integral human development with the care of all creation, highlighting the contribution of ecology to the formation of personal identity, to contemplation, to the quality of everyday life. Thus, the human being cannot be seen as external and disconnected from creation. At the same time, human ecology calls for fraternity, for care for the most vulnerable and for one’s own body and identity, contrary to “all forms of ruthlessness, exploitation, and domination”.

Challenges for Business Education and Management

As Kennedy and Calleja (2016, p. 84) point out, the encyclical *Laudato Si’* calls for a profound cultural revolution “which demands much more than policy changes and intends to give shape to habits and culture”, and for a spiritual change where “integral development, or human ecology” constitutes the normative principle. Businesses are challenged “to think broadly when defining [their] purpose”, needing to counteract the way they are often reputationally associated with the origin of several problems listed by Francis (Kennedy and Calleja 2016, p. 84). Multiple and layered problems are associated with capitalistic economic systems where businesses operate. For example, the use of nature and people who are considered only as raw material; the throwaway logic, culture and consumerism; the

technocratic paradigm (Kennedy and Calleja 2016); a short-term perspective in political measures and business conduct; deification of the market; the growth imperative; and the obsession with profit maximization (Klein and Lacznia 2021, pp. 78–79).

Moving away from transactionary and exploitative business models, companies are called to consider the intrinsic concepts of integral human development and human ecology. Both point to development in various facets of human life, as well as to the primacy of the human person in the face of the excesses of technocratic manipulation and the functioning of markets (Kennedy and Calleja 2016, p. 85). In this way, human work is a central concern for business, and upholding human dignity through work is reinforced in *Laudato Si'*, and cited by Kennedy and Calleja, “work is a necessity, part of the meaning of life on this earth, a path to growth, human development and personal fulfilment” (LS, 128). Such concern for work should be reflected in the attention of business leaders on issues such as “work stability, permanent training, and decent retirement policies” (Kennedy and Calleja 2016, p. 85).

In addition, the value that Francis places on local cultures in the face of a “homogeneous globalization” is reflected in a more prominent role for local stakeholders and in recognition of specific and diverse realities by a “quality of life” (Kennedy and Calleja 2016, p. 85). Further implications of the concepts of integral human development and human ecology for business, referred to by Kennedy and Calleja (2016, p. 86), are related to the need to think about “new forms of growth” (LS 193), including a “decreased growth in some parts of the world” (LS 193), denouncing profit maximization as the ultimate purpose of business, and pursuing Pope Francis’ call for business to address ecological, cultural and social realities.

The Importance of Management Education and Pedagogy

To achieve the changes that are encouraged within the message of *Laudato Si'*, namely, promoting the assumption that each person has their own responsibilities, it requires what Mayer et al. (2020, p. 423) stated as “a comprehensive education programme, especially for the exploiters and the consumer polarized egoists, to a new lifestyle. Then, like the visionary idea, they also change the global conditions and order”. In this context, education and transformative pedagogies become essential to generate knowledge, reflection and capabilities of people involved in systems and institutions that can influence these conditions.

Education is considered a “key channel through which experience and exposure phenomena may have the most powerful and durable impact on agents’ behaviors” (Beretta and Maggioni 2023, p. 68), as well as the common good of humanity, which must move away from instrumentalization for commercial purposes and private interests (Gracia-Caladín and Tamarit-López 2021, p. 818; 824). Indelicato (2022) demonstrates that the construction of sustainable societies needs ethical and educational reinforcement, considering that “the environmental problem today is essentially an ethical educational problem” (p. 667), whose complexity requires solutions that must involve “knowledge in its interdependence in an interdisciplinary perspective” (...) (672).

According to Phan (2023, p. 317), the *Laudato Si'* call for Integral Ecology requires not only technical, political, juridical and social responses, but above all “a new educational system and the development of new habits in individuals and groups (...)”. Therefore, education plays a fundamental role in promoting “a new way of seeing” that recognizes the notion of the common good, requiring the contribution of different actors in society, from

families and churches to schools and organizations (Barrett and Duns 2023, p. 272). Here we underscore the role of universities and business companies.

Based on a review of the literature, Cuesta-Claros et al. (2022) identified several proposed models that conceptualize the contribution of universities to sustainable development: Human Development University, Developmental University, Post-Developmental University and Transformative University. While these university models have different strategies, there are several critiques in common. For example, that universities should play a proactive role in the transformation toward integral human development and “should strengthen their engagement with society to respond to societal needs” (p. 526); criticizing the current functioning of universities “as merely an actor that enables economic growth” (p. 535); and recognizing the importance of knowledge of different societal actors, including non-academic knowledge.

Focusing on economic and business curricula, Dierksmeier (2020, p. 74) observes that since the 2008 economic crisis, an increasing number of scholars have highlighted the link between the ‘mental models’ present in these courses and students’ ‘willingness to take on social and ecological responsibilities’ or their capacity to ‘appreciate the lessons offered by business ethics.’ Simultaneously, there is a growing demand to enhance students’ capabilities to act in a socially, ecologically, and morally sustainable manner within their future professional roles. This trend underscores the necessity of transforming management education, ensuring that universities, their graduates, and their places of employment are responsive to the implications of our interconnected ecological, cultural, and social realities.

A management education that intends to incorporate the paradigm of Integral Ecology as a basis for a “planetary virtue ethic” (Barrett and Duns 2023, pp. 264–266) requires pedagogies that actively reflect the aforementioned principles and imperatives of *Laudato Si’*. As Mason et al. (2024, p. 540) argue, pedagogical innovation in management education is “both urgent and difficult” due to multiple ruptures, including existing crises such as the climate emergency; consequently, this innovation is a determinant of the future value and relevance of business schools. In this context, pedagogy here is understood as “how we teach”, distinguishing it from the curriculum - “what we teach” - and purposes and values - “why we teach” (p. 544). Thus, teaching in a manner that is consistent with *Laudato Si’* necessitates a re-orientation, and praxis, that actively embeds and embodies the principles and values that emanate from an *Integral Ecology*.

A praxis approach that integrates real life contexts is essential. In recontextualizing business management education, the teaching scenario must transcend a merely content driven approach. For example, Dodd et al. (2022) referred to transformative enterprise education and the entrepreneurial ecosystem to management education which is a valuable re-framing. They argue for re-orienting business education toward “the integration of the business ecosystem in the natural context”, rather than continuing to “integrate the planetary context within our metaphorical models” (p. 689). Drawing from Dodd et al. (2022) the pedagogical implications for integral ecology involve relocating learning through immersion experiences, going to the social and ecological peripheries and truly getting to know realities. As the authors contend, “embracing socially just education means much more than inviting teachers to collaborate. It means going to the depleted edges of society (...)” (p. 691). Ultimately, the interconnected principles of *Laudato Si’* and their implications must not only be transmitted and analyzed in terms of the curriculum but also adopted in pedagogies that model what an integral ecology means in practice.

Pedagogically, an *Integral Ecology* approach requires conducting business management education so that the principles and values of *Laudato Si'* are actively practiced throughout the learning process. This includes embracing interdependence (Barrett and Duns 2023), recognizing the intrinsic value of each creature and everything that concerns the human (Varanda 2024), avoiding the absolutization of markets (Negedu and Faruna 2024) and prioritizing multi-sectoral and multi-level dialogue (Imanaka, 281). Being relationally interconnected within the multiple layers of time (past, present and future all in the present moment) and the dynamic nature of unfolding realities calls for ongoing onto-epistemological shifts for educators, students and community stakeholders alike. *Laudato Si'* principles and values must not only be transmitted and analyzed in terms of the curriculum but also adopted in dialogical pedagogies that invite students to experience the diversity and complexity of reality within and beyond the classroom. Doing so provides students the opportunity to embody *Integral Ecology* whilst collectively inquiring how to foster the flourishing of local integral ecologies in reality as essential to any business or company.

A growing diversity of transformative pedagogies is available for educators seeking to innovate their practice. For example, Arenas (1999) 'pedagogy of place' facilitates the emergence of localized learning, while Freire's (1970) foundational Pedagogy of the Oppressed can be extended to include the natural world as the 'oppressed'. Relational, dialogical, and integral pedagogies of care that attend to the dignity, vulnerability, and flourishing of persons, communities, oceans, soils, and the whole of creation form learners ethically, spiritually, and socially, not merely cognitively. Ultimately, these transformative pedagogies recontextualize learning into an experiential, integral praxis. By critically integrating the perspectives and the voices of ecosystems and more-than human beings into the dialogue process, these methods reframe, reorient and regenerate the purpose and practice of business organisations and educational institutions.

More than a decade has passed since the encyclical *Laudato Si'* proposed dialogue as a primary vehicle for transformation, prompting a critical question: have educational approaches in management shifted toward an integral ecology? Currently, significant disconnects between natural and social systems present both challenges and opportunities for management education to bridge the gap toward fostering flourishing, diverse global realities. Ultimately, transforming educational models is intrinsically linked to the management theory research conducted by academic institutions. As Pirson (2019, p. 53) suggests, the field must question prevailing economic paradigms, requiring management theorists to 'reflect on the potential indifference of their work to human dignity.'

Given our intent to study the influence of *Laudato Si'* on management education, it is essential to consider that outcomes may vary depending on the institutional context of the business school. We hypothesize that universities whose vision and guiding principles align with the framework of integral ecology are likely to provide an education more consistent with the values of *Laudato Si'*, a distinction we expect to see reflected in our survey results. A primary example of such coherence may be found in institutions that have adopted a humanistic management approach. As Aure (2025) notes, this approach necessitates a shift in management education through the 'reconceptualization of human nature and organizational purpose' (p. 2). By asserting that capacities such as cooperation, empathy, and ethical behavior are innate and fundamental to human flourishing, this framework emphasizes 'dignity, well-being, and the balancing of multiple human drives,' ultimately fostering a sense of 'responsibility from the inside out' (p. 2).

Moreover, Domingo and Melé (2022) argue that a humanistic approach considers human beings in their integrity, directly opposing the traditional management paradigm of *homo economicus*—a model that ‘reduced man [and all persons] to an individual with preferences and (economic) rationality seeking to maximize such preferences’ (p. 1). Despite varying interpretations of humanism, the authors note that ‘it is generally accepted that humanism entails putting the human being at the core of any reflection’ (p. 2). By exploring classical Western humanism, Domingo and Melé (2022, pp. 1, 12) establish a foundational framework for humanistic management. This framework begins with a realistic epistemology—antithetical to the ‘thesis of the separation’ between business, ethics, and metaphysics—which helps define the purpose of the company business. Furthermore, this approach integrates several key pillars: a view of the human being as a whole with ‘intrinsic dignity and called to growth’; human action characterized by the unity of internal and external dimensions; ethics understood as a ‘guide for a good life’; society perceived as a ‘community of people’; and an enduring openness to ‘beauty and transcendence.’

Fiori-Khayat (2023, p. 669) identifies three core principles of Humanistic Management: dignity, defined as “an unconditional right to see the human dignity of the interlocutor recognized”; decision-making, which recognizes “ethics as a founding and indispensable element in all organizational decision-making” and social responsibility, “conceived within the framework of a permanent and sincere dialogue with all stakeholders, including employees”. This approach is relevant not only to the corporate sector but also, as Galat (2023) argues, to the critical reflection of universities regarding their own social responsibility. Galat emphasizes that individuals should not be limited to interpreting reality “solely through the prism of profits and material values necessary to satisfy their needs” (p. 136). Consequently, the application of this approach must encompass all University stakeholders, with a specific focus on students as internal stakeholders (p. 139).

Based on a comprehensive literature review, Galat (2023, pp. 142–143) identifies the principles most recurrently associated with the humanistic approach. Emphasis is placed on “respect for human dignity”, followed by the “diversity, self-realization, and organizational development/common good”. Other significant albeit less frequently cited, principles include “integration”, “ethics”, “holistic view of human”, “harmony between human and nature” and “respect for human spirituality”. Furthermore, Galat (2023), pp. 144–145) highlights the benefits for universities may derive from adopting these principles. These include, “greater employee loyalty” and “positive student perception” arising from the principle of “human dignity”; the effective “utilization of diversity potential within the organization”; and the fostering of individual development that “enables the growth of the organization” and promotes an “entrepreneurial orientation manifested in initiating new solutions”.

According to Pirson (2020), the humanistic approach contributes to the advancement of responsible management learning and, consequently, to a more ethical and sustainable business conduct. This approach emphasizes “dignity literacy, balance orientation [between different drives], as well as creativity and innovation for the common good” (p. 775). These “capabilities are relevant for potential instructors as well as learners” (p. 785). The principles of Humanistic Management identified herein, applicable to both companies and to universities, align closely with the core proposals of *Laudato Si’*. These include the unique dignity of the human person (LS 43); the integration of ethics across all domains, such as establishing limits for technology (LS 105), the need to address complex contemporary

realities (LS 110) and the imperative for genuine “social and environmental responsibility of businesses” (LS 194).

Adopting a holistic systems perspective, it must be emphasized that, according to Pirson and Lawrence (2010), the humanistic vision necessitates the assumption of individual responsibilities regarding the systemic consequences of one’s actions, particularly for business leaders. As the authors state “(...) individual and organizational freedom materialize through care and concern for the other” and “attempts to alleviate social problems through business are an imperative” (p. 559). This perspective aligns with the concept articulated in *Laudato Si’* (LS 129) that business can—and should—serve as a ‘noble vocation’ capable of improving the world. Consequently, there is a clear and robust confluence between the humanistic management framework and the core principles of *Laudato Si’* and Integral Ecology.

Moreover, the content of *Laudato Si’* transcends mere contemplation; it necessitates concrete lines of action (LS 163), reinforcing the urgency of implementation. Consequently, approaches that promote the implementation of Integral Ecology in different professional realities are essential. We contend that the humanistic management approach offers the fundamental principles necessary to meet this demand, particularly through its emphasis on “creativity and innovation for the common good” (Pirson 2020). This alignment is especially significant when considering that the common good encompasses “not only human beings but also common resources and all of creation” (Horodecka and Zuk 2023, p. 4). In this light, the humanistic management approach serves as a powerful enabling vehicle for the implementation of Integral Ecology within and across universities and business schools. For these reasons, our proposed survey tool targeted at graduates of institutions that foster humanistic management, is not only relevant but necessary for advancing this field of inquiry.

Another relevant group comprises Catholic Universities, which share confessional beliefs, values, and are underpinned by Catholic Social Teachings, of which *Laudato Si’* is now a vital part. Like most higher education institutions, Catholic Universities face challenges stemming from shifting contemporary paradigms; historically, however, they were understood as centers of truth-seeking Keefe (2024). Addressing this modern shift, Keefe (2024) argues that “Catholic universities would do well to differentiate themselves in the market by focusing the educational offering around intellectual virtues, drawing from the rich heritage of the Catholic tradition as its competitive advantage” (p. 296). By doing so these institutions can pivot away from the dominant modern focus on “job-landing and prestige signaling” (Keefe 2024, p. 297). Instead, they can re-centre their missions on the pursuit of truth, the promotion of transdisciplinarity and dialogue, necessary for solving complex global problems and their foundational role “as a space where faith and reason intersect” (Almandoz et al. 2024, p. 192).

Furthermore, the purpose of Catholic universities extends beyond the pursuit of purely intellectual knowledge; it also encompasses “a quest for excellence in cultural, human, and professional development,” thereby addressing both the character formation and spiritual lives of students (Almandoz et al. 2024, pp. 188, 192). Rather than functioning in isolation from the broader world, Catholic Universities are called to play an active role in responding to the interrelated challenges facing contemporary societies. By tapping into the deep roots of the Catholic tradition, higher institutions can engage with the world in a way that is

beyond activism, an engagement exemplified by Pope Francis's encyclicals *Laudato Si'* and *Fratelli Tutti* (Almandoz et al. 2024, p. 194–196).

In the same vein, Gustafson and McCarville (2017) maintain that Catholic business schools have a uniquely prominent role, compared to their secular peers in providing business ethics education, as their foundational religious values directly impact their pedagogical methods and course content. With Catholic universities, *Laudato Si'* can function as a powerful complement to the *UN 2030 Agenda and the Sustainable Development Goals*, challenging the growth capitalist agenda and serving as a catalyst for integral ecological conversion (Sánchez-Camacho and Moreno 2024, p. 12). Consequently, these themes are becoming a priority for education and research within these Universities (Sánchez-Camacho and Moreno 2024, p. 8), many of which house business schools. Concurrently, the seven *Laudato Si'* Goals (Briola 2020) and the *Laudato Si'* Action Platform (Klein and Lacznia, 2021) were launched by Pope Francis and auspiced by the Vatican Dicastery for promoting Integral Human Development; this global initiative spans seven sectors including both higher education and business, offering a well-resourced framework to actively engage with *Laudato Si'* and *Integral Ecology*. Given the alignment of principles guiding these two specific sets of institutions – those fostering a humanistic management approach and Catholic universities – an analysis of graduate attitudes regarding the principles and imperatives of *Laudato Si'* is both highly relevant and timely.

The Role of Business in Society

According to Aksoy et al. (2019, pp. 240–241), despite the plethora of corporate social responsibility initiatives launched by companies in recent years, a profound “crisis of trust” remains, with capitalism and business being frequently viewed as the culprits behind “many of society’s economic, social, and environmental problems”. For genuine transformation to occur, organizational leaders need to have “awareness, mindset, frameworks and knowledge” that allow them to respond to society’s problems while their businesses develop and unfold.

In preparing these future leaders, business schools bear a unique responsibility and opportunity. They offer a vital space for systemic change to be initiated and furthered, representing “the potential of transformation in which business schools and their graduates can influence the business world in creating even more shared and sustainable value for business and society (...) [a prospect that is] clearly both exciting and motivating” (Aksoy et al. 2019, p. 254).

Catholic Social Teaching has long enunciated principles that are directly relevant to business education and management, such as “human dignity, the dignity of human work, promotion of the common good, subsidiarity (employee participation), responsible stewardship over resources, and solidarity with the poor and other marginalized members of society” (Goodpaster et al. 2018, p. 762). *Laudato Si'* expands and deepens this tradition by introducing an integral ecological perspective on diverse and complex realities, thereby posing several challenges for business. In addition to the broader framework and principles within *Laudato Si'* that apply to humanity and organizations in general, Pope Francis explicitly addresses businesses throughout the encyclical. These references frequently focus on identifying the problematic social and ecological realities associated with business activity, including:

- a) The pollution caused by businesses and the entanglement of corporate interests with a technological paradigm that presents itself as the sole solution to ecological degradation, while ignoring “the mysterious network of relations between things” (LS 20, 21);
- b) The privatization and control of water by large multinational corporations, raising the likelihood that water will become a major source of conflict within this century (LS 31);
- c) Corporate interests driven by consumerism that prompt human interventions in ecosystems, resulting in detrimental effects on areas such as biodiversity (LS 34);
- d) The trade imbalances tied to “ecological debt”, which drives inequity between the Global North and South through the prolonged exploitation of natural resources (LS 51);
- e) The sluggishness with which both business and politics have reacted to the urgent need to progressively replace “highly polluting fossil fuels” (LS 165);
- f) The necessity to assessing the ecological impacts of corporate ventures through transparent policy processes, ensuring these evaluations occur at the very inception of any business proposal (LS 182, 183);
- g) The rejection of a “magical conception of the market” which falsely assumes that societal “problems can be solved simply by an increase in the profits of companies or individuals” (LS 190);
- h) The frequent reduction of corporate social and environmental responsibility of businesses to a mere “series of marketing and image-enhancing measures” (LS 194);
- i) The reliance on the principle of profit maximization, which, when “frequently isolated from other considerations, reflects a misunderstanding of the very concept of the economy”, and ignores externalized costs such as the “cost of future resources or the health of the environment” (LS 195);
- j) The manner in which certain corporate groups displace the state in its responsibilities, thereby gaining disproportionate power, considering themselves exempt from regulations, and even tolerating forms of organized crime (LS 197).

On the other hand, Pope Francis highlights several aspects that demonstrate the positive role that business can play in building a better world:

- Work as a vehicle for personal growth: Work in general, and business operations by extension, are viewed as vital to personal growth offering places to exercise diverse skills: “creativity, planning for the future, developing our talents, living out our values, relating to others, giving glory to God” (LS 127).
- The promotion of business creativity: There is an imperative to foster corporate creativity to ensure that employment opportunities are preserved alongside technical progress, as exemplified by the vital of small-scale food producers (LS 128, 129);
- Business as a noble vocation: The encyclical affirms the “noble vocation” of business, which is “directed to producing wealth and improving our world”, highlighting their role in job creation as part of “its service to the common good” (LS 129).

Consequently, it can be argued that the direct references to business in *Laudato Si'* convey an underlying criticism not of commercial activity per se, but rather of the manner in which many corporate enterprises are currently conducted. Thus, the true target of transformation is corporate conduct and by extension, transformation of people in this context. Along these

lines, Francis notes, the structural pressure that shifting consumer lifestyles can have on “the way businesses operate” (LS 206).

The conducted and operational design of a business are inherently tied to its corporate strategy. Indeed, Campbell and Tawadey (1990) define strategy as the means by which an enterprise achieves its purpose. Similarly, Cardoso (2017), pp. 47–48) maintains that the strategic management process encompasses not only identifying a firm’s mission and objectives but also defining the exact pathways to achieve them. He emphasises that effective strategic implementation requires careful consideration of both organizational structures and the behavioral dynamics governing how people relate to one another in the workplace.

If the “ethical framework” associated by some with Laudato Si’ (Anyanwu 2024, p. 52) is applied to the core elements of the strategic management process, it is expected that “new convictions, attitudes and forms of life” (LS 202) will emerge. As an example, Barrett and Duns (2023), pp. 264–266) highlight a key consequence of applying integral ecology: the imperative not only to recognize human impacts on creation but also to actively identify ways to mitigate these negative effects. This foundational principle fundamentally shifts the conditions, priorities, and execution of the entire strategic approach.

Analyzing these strategic elements as they are described by Cardoso (2017), it is possible to conclude that an integral ecological approach involves several key dimensions. These include a definition of the organizational mission that incorporates the explicit purpose of mitigating impacts on creation; a strategic choice of “businesses where the company wants to be” (p. 73) that actively minimizes negative externalities while maximising positive impacts for people and planetary flourishing; an internal organizational structure that enhances this objective; and the systematic engagement and motivation of personnel around minimization of negative impacts. Ultimately, this reflective framework ought to be extended to all other elements of business strategy, fully integrating the values and principles underlying integral ecology.

Measuring Attitudes of Graduate Students Towards Laudato Si’

Business schools can utilize numerous tools to evaluate their performance, which are highly relevant for integrating guiding principles into their operations. In the specific context of Catholic business schools, existing methodologies, such as the Catholic Identity Matrix developed by Goodpaster et al. (2018), which allows business schools to assess and improve their programs. However, the focus of this particular tool remains restricted to “academic, curricular, and administrative activities” (p. 763), thereby evaluating the operations and conduct of the business school primarily as an organization.

Complementing these existing organizational frameworks is highly valuable, particularly when it comes to amplifying the voices of those at the centre of the educational experience: the graduates, who are now active in the business sector. Measuring and analyzing their current attitudes provides a critical long-term metric of the educational efficacy. As Keefe (2024) (p.301) argues, the enduring social impact of premier universities is measured in the long term “through the creative initiatives freely carried out by their graduates over time” (p.301). This is because students serve as “the main actors of the university” who “after the training period, will be professionals and have a direct involvement in society” (Sánchez-Camacho and Moreno 2024, p. 9).

To gain insights into the attitudes of graduates of business schools graduates regarding principles coherent with Catholic Social Thought and *Laudato Si'*, the authors have developed a foundational framework for a survey tool designed to measure the extent to which these principles are reflected in their attitudinal responses. The survey tool does not investigate the specific degree of commitment that an individual business school may have toward incorporating the message of *Laudato Si'* into its curriculum, rather, it operates on the foundational assumption that universities play a critical role in responding to broader eco-cultural-social needs (Cuesta-Claros et al. 2022).

In defining the concept of graduate 'attitudes' for measurement, it is instructive to consider Krosnick et al. (2005). Following an analysis of the evolution of the concept in social psychology, they observed that 'attitude' has increasingly focused "on approach and avoidance behaviors and defining attitudes as the evaluative predispositions that lead to these" (p. 22) ultimately defining the construct as "a net evaluation associated with the object" (p. 24). To measure a persons' attitude toward a specific thing, the most common approach, according to Kaiser and Wilson (2019), relies on the tripartite model proposed by Rosenberg and Hovland (1960). This framework constitutes "a latent variable model that describes the relationship between a latent attitude and its cognitive, affective and behavioral manifestations" (Kaiser and Wilson 2019). According to this model, an individual's response mode toward an object, integrated within their latent attitude, can be affective, cognitive, or behavioral. These dimensions manifest through various expressions, including verbal statements of affect, beliefs, or reported behavioral performance. Consequently, explicit propositions and statements can be developed for a survey instrument to act as indicators measuring these three distinct behavioral, cognitive, and affective dimensions of attitude.

Since we intend to analyze attitudes towards what can be considered a virtuous agenda (Barrett and Duns 2023), it is necessary to account for the potential influence of social desirability bias. To mitigate this risk, we propose utilizing anonymous and confidential questionnaires for student graduates currently in the workforce. Although the topics addressed in the present study are broader, they share structural similarities with surveys on self-reported environmental actions, a domain where Vesely and Klöckner (2020) explicitly investigated social desirability bias. According to Vesely and Klöckner (2020), one effective approach to managing this bias is "to measure the tendency a person has for responding in a socially desirable manner and use this as a control variable in survey studies to adjust results for the individual bias". Interestingly, Vesely and Klöckner (2020) concluded that while the effects of social desirability in environmental psychology are relatively minor, the use of social desirability scales as control variables remains highly recommended. Consequently, we propose that a similar procedure be integrated into the implementation of our proposed survey tool.

Furthermore, several of the propositions included in the survey are reverse-coded items. These are "statements that are negatively related to the measures construct", which can contribute to mitigating the risk of "social desirability and acquiescence bias" while also safeguarding "measurement validity" (Elek et al. 2025). Reverse-coded items are intentionally have been embedded in Items 3, 5, 7, 11, 14, 16, 17, 20, 21, 26, 29, 39. The presence of these reverse-coded items must, therefore, be systematically accounted for in the survey validation and data analysis process.

The authors' intention is to propose the foundational framework for a survey tool and, in doing so, catalyze dialogue with business scholars and Universities that are interested

in developing this instrument and participating in a collaborative process of continuous improvement. An initial version of this proposed survey tool was presented at the “*Sustainability and Integral Ecology in Business and Law: Ten Years After Laudato Si’*” conference in Lima, Peru, in July 2025. Co-organized by the University of St. Thomas and Universidad de Piura, this conference provided a platform for the authors to invite scholars and practitioners from diverse global contexts to collaborate on the initiative. Accordingly, readers engaged in business schools are warmly invited to join this ongoing survey initiative as it moves toward full implementation.

Based on a comprehensive review of the literature and a thematic analysis of *Laudato Si’*, a set of 51 propositions have been identified, to serve as the foundation for a survey directed at business school graduates. These propositions are significant not only for collecting empirical data on respondent attitudes but also, and more importantly, because they provide a systematic framework capturing the research findings regarding the relationship between *Laudato Si’* and the potential transformation of educational programs within business schools.

According to Hill and Hill (2012), pp. 93–95; 137–138), survey propositions are ideally framed as statements rather than questions, requiring respondents to select from five closed-ended response options. Accordingly, we propose utilizing a five-point Likert-type scale ranging from 1 – Completely disagree to 5 – Completely agree to capture graduates’ degree of agreement with each item. This approach yields quantitative data suitable for robust statistical analysis tailored to the specific objectives and sample size of the research. Furthermore, these initial quantitative findings can be subsequently integrated with the qualitative instruments such as semi-structured interviews for more comprehensive analysis. This methodology aligns with Kjell et al. (2019, p. 92) who note that the measurement of psychological constructs like attitudes is frequently executed “by asking individuals to reply to questions using closed-ended numerical rating scales”.

The proposed survey can include items designed to collect demographic data that will enable the researcher to characterize the respondents, such as the time elapsed since attending the Business School, geographical location, the type of organization where they are currently employed and the specific university they attended. This last variable is particularly critical for gaining insights into potential attitudinal differences among graduates from institutions that implicitly foster a humanistic management approach, Catholic universities and other tertiary institutions without such institutional commitments.

To support the structure of the propositions synthesized from the literature review, and to identify the explicit call of *Laudato Si’* for companies and business schools, we selected the foundational concepts of Peter Drucker’s “theory of the business” as a guiding framework (Drucker 1998, p. 4). Drucker is widely regarded as “the guru of management” at the turn of the twenty-first century (Ramirez 2020, p. 1) and the “father of modern management” (Jha 2009, p. 54). He argued that every organization operates under a distinct “theory of the business”, which comprises a set of core assumptions that shape its activities and development (Drucker 1998, p. 4). As illustrated in Fig. 1, these assumptions center on three main pillars: the context and environment in which the organization operates; the specific mission of the organization; and the core competencies necessary to successfully fulfill that mission (Drucker 1998, pp. 9–10).

For a business theory to be valid, its assumptions must adequately reflect reality and be coherent with each other, while the theory needs to be known and understood throughout

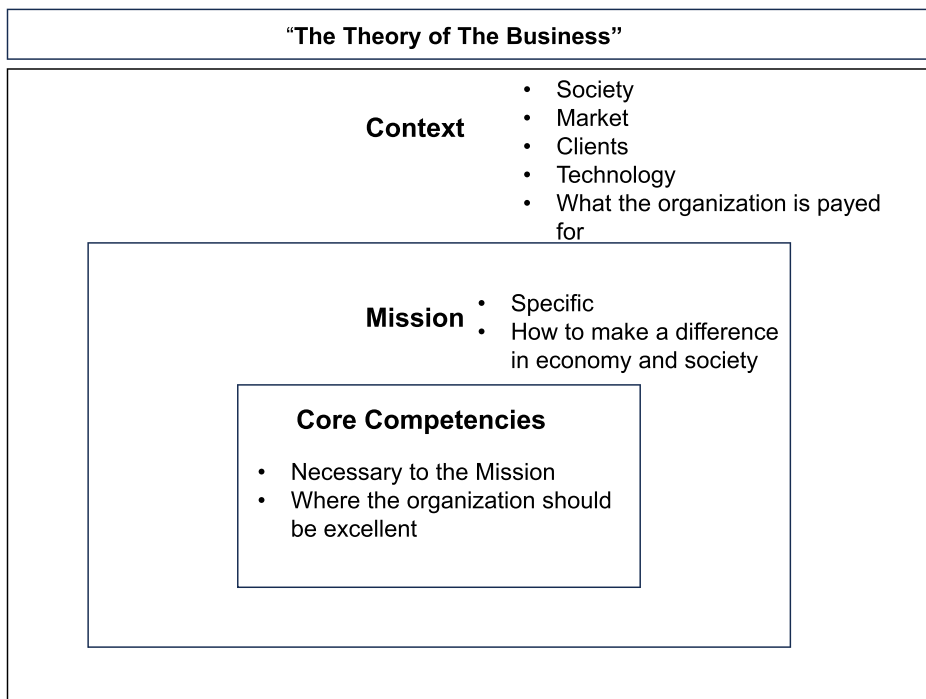


Fig. 1 The theory of the business, adapted from Drucker (1998)

the organization, as well as constantly tested (Drucker 1998, pp. 10–11). “Preventive care” is, therefore, needed, constantly monitoring and testing theory, periodically considering the possible abandonment of products, services or policies, and analyzing non-customers for signs of change. “Early diagnoses” and concrete actions that change policies and procedures are also required to align the organization’s behavior with new contexts, a new definition of the mission or competencies to be developed (Drucker 1998, p. 12). A business that can develop a theory of the business that works extremely well will have a strategy that is “successful in achieving its purpose” (Sathe, 2009: 6).

Bearing in mind the assumptions of the theory of the business, the propositions to be considered for inclusion in this survey are organized into categories. The basis for this survey tool has been categorized according to the three dimensions of assumptions of Drucker’s Theory of Business (Drucker 1998) presented in Fig. 1. For this categorization, it was considered that the three dimensions of context, mission and core competencies do not refer to objective descriptions of reality - although it is intended that they reflect reality for each organization in the most accurate way possible. As Drucker (1998, p. 12) states, the assumptions of an organization can become obsolete, that is, they can still be assumptions for the organization but are no longer adequate for the reality in which it is operating.

In fact, Drucker’s assumptions “shape any organization’s behavior, dictate its decisions about what to do and what not to do, and define what the organization considers meaningful results” (Drucker 1998, pp. 3–4). As such, all assumptions, from an ethical point of view, have a normative meaning for the organization, since they fit into what Carroll and Ethics in Management (1999, pp. 141–142) defines as normative ethics: “(...) when we speak of what

managers ‘ought’ to be doing or ‘should’ be doing” (...). Since the objective of our study is to gain insights into the attitudes of graduates of Business Schools towards principles that are coherent with Laudato Si’, the propositions were distributed across the three dimensions evaluating the extent to which each one relates to the construction of assumptions that are coherent with the vision of Integral Ecology. In this way, we assign the 51 propositions items into three categories:

Context - this first dimension includes the propositions related to assumptions that refer to the context in which businesses operate. According to Drucker (1998, p. 9), these are the “assumptions about the environment of the organization: society and its structure; the market; the customer and technology”. For this reason, here we include propositions related to ecological and social crises and their interdependence; the way society, the economy, markets and governments act; humanity’s relationship with technology, the environment and all creation. For example, as part of this group of propositions we have Item 1 “The world is experiencing a serious ecological crisis”, Item 8 “The future of humanity depends on nature” and Item 9 “The poorest people are those who suffer the most from ecological degradation”, since they contribute to the construction of assumptions that reflect the reality of the contexts in which companies operate when seen through the lens of integral ecology (in particular, on the devastating consequences of climate change for people in poverty, see, for example, the facts reported by Alston 2019). In the same way, since assumptions about the market are explicitly included in this dimension by Drucker (1998), propositions that concern its functioning and its effects are also included here, as these are related, first and foremost, to the context in which companies operate (see Items 13 to 16).

1. The world is experiencing a serious ecological crisis.
2. The ecological crisis that the world is experiencing has its origin in human thought and action.
- 3a. Ecological deterioration and human poverty are interconnected phenomena
- 3b. Responses to ecological and social problems must be addressed jointly
4. An ecological crisis is a social crisis.
5. To solve world problems, each country must above all defend its own interests.
6. Safeguarding the planet’s ecosystems requires consensus from different stakeholders.
7. Nature is above all a resource to be used by human activities.
8. The future of humanity depends on nature.
9. The poorest people are those who suffer the most from ecological degradation.
10. All living beings, human and non-human, have value in themselves.
11. The material world has value insofar as it serves to satisfy human needs.
12. There is an interdependence between all things on the planet.
13. The basis for the functioning of the markets must be a culture of savings.
14. Free markets should not have any kind of limit.
15. Free markets can create negative imbalances for people.
16. The basis for the functioning of markets must be a culture of consumption.
17. Humans are separate from the natural environment.
- 18a. The resolution of the ecological crises requires the contribution of all areas of knowledge.
- 18b. The resolution of the social crises requires the contribution of all areas of knowledge.
19. Businesses should consider people as more important than technology.
20. Technology is the only solution to the environmental problems.
21. The economy must always seek continuous growth.
22. There must be solidarity between current and future generations.

Mission - in this second dimension we include propositions that are more directly related to what is specific in the business' contribution to society and ecosystems. In the words of Drucker (1998, p. 10) "the assumptions about mission define what an organization considers to be meaningful results; in other words, they point to how it envisions itself making a difference in the economy and in the society at large".

Thus, propositions related to the construction of assumptions on a business' social and environmental impacts and responsibilities, as well as its core objectives, were considered in this category. Among these are Item 23 "Businesses must identify ways to reduce their impact on the environment" or Item 27 "Businesses should seek to improve the world", as they are catalysts for assumptions that will lead to the definition of a mission where the principles of integral ecology can be present. Likewise, it is interesting to analyze under this dimension the attitude of graduates towards items such as Item 26 "Profit maximization is the central objective of businesses", as it influences the definition of what the organization primarily intends to obtain as a result of its activity.

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- 23. Businesses must identify ways to reduce their impact on the environment.
 - 24. Businesses must take responsibility for caring for the environment.
 - 25. Businesses must take responsibility for caring for society.
 - 26. Profit maximization is the central objective of businesses.
 - 27. Businesses should seek to improve the world.
 - 28. Job creation by businesses is a service to the common good.
 - 29. a) Environmental problems can be largely solved by increasing the profits of companies.
 - 29. b) Environmental problems can be largely solved by increasing the profits of people.
 - 29. c) Social problems can be largely solved by increasing the profits of companies.
 - 29. d) Social problems can be largely solved by increasing the profits of people
 - 30. Businesses can operate in ways that safeguard the ecosystems they are part of.
 - 31. It is urgent for businesses to stop using fossil fuels.
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Core Competencies - this third dimension includes propositions related to skills development, considering that "(...) the assumptions about core competencies define where an organization must excel in order to maintain leadership" (Drucker 1998, p. 10). We believe that skills development should not be only technical but multifaceted, namely including also the awareness of the world in which business exists; the personal, moral, ethical and spiritual development; the ability to adopt new lifestyles and concrete actions. Special emphasis is placed here on the role of business schools and companies in the development of such skills.

Thus, this dimension frames, for example, propositions that reflect the need to develop skills that allow for a change in lifestyles or the capacity to respond and act in the face of societal problems (e.g. Item 42 "In order for people to adopt new lifestyles, it is essential to educate people who work in companies", Item 45 "Business leaders must be able to respond to societal problems while developing their businesses" or Item 37 "In the last year, I have taken an action in my work that contributes to the resolution of social problems").

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- 32. I am concerned about the environmental problems caused by businesses.
 - 33. I am concerned about the social problems caused by businesses.
 - 34. The moral development of each person is grown through lived practices.
 - 35. A new way of living is needed, more in line with care for all on Earth.
 - 36. In the last year, I have taken an action in my work that contributes to regenerating ecological patterns.
 - 37. In the last year, I have taken an action in my work that contributes to the resolution of social problems.
 - 38. Work is a form of growth as a person.
 - 39. Work is above all a necessity.
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40. Work is part of the meaning of life.
41. Businesses need to take into account that people develop in different dimensions of human life.
42. In order for people to adopt simple lifestyles, it is essential to educate people who work in companies.
43. The Business School I attended was important for my spiritual life.
44. The Business School I attended was important for the formation of my character.
45. Business leaders must be able to respond to societal problems while developing their businesses.
46. Work is a context where it is possible to exercise creative skills.
47. Work is a context where it is possible to exercise planning skills for the future.
48. Work is a context where it is possible for everyone to develop their talents.
49. Work is a context where it is possible for everyone to live their values.
50. Work is a context where it is possible to relate to each other.
51. Work is a context where it is possible to give glory to God.

It is worth noting that ecosystems and their life supporting services are interrelated across the three dimensions of context, mission and core competencies; consequently, it is envisaged that all future business managers will need to apply their understanding of ecosystem health to secure interconnected, flourishing futures.

The survey items detailed above, and their categorization, constitute an initial proposed survey tool. It will be important to further develop this survey tool through a collaborative process with other stakeholders, to validate and refine the propositions and their categorization into the three dimensions for application. The choice of validation techniques will be based on the existing literature and relevant studies. A first validation of the survey content may use the Q-Sort method, which is applied to assess “reliability and construct validity of questionnaire items at a pre-testing stage”. This method seeks to reach a “satisfactory level of agreement” by a panel of experts regarding the selection of the questionnaire items (Nahm et al. 2002, p. 114).

Other validation techniques may also be applied to the proposed survey tool. For example, the four-step process of development and validation of attitudes measurement scales presented by Hair et al. (2019). This process includes: (i) literature review or interviews with experts (ii) a “theoretical or face validation” performed by experts or specialists “to evaluate the items and their relationship to the measured construct” (p. 493); (iii) a “semantic validation” with potential respondents (i.e., business school graduates) in group sessions or individual interviews in order to “evaluate the meaning and understanding of each statement and respond accordingly” (p. 494); and (iv) statistical validation, including statistical techniques such as an exploratory and confirmatory factor analysis, “to understand and clarify new scales” (p. 496). One possible option suggested by Hair et al. (2019) for the use of the exploratory and confirmatory factor analysis is to apply exploratory analysis to a pilot study sample and then perform confirmatory factor analysis on the final sample data.

Since we intend to implement the questionnaire in various regions of the world, it is important to consider methodologies that include cross-cultural perspectives. For example, Milfont and Duckitt (2010) conducted studies in two different countries and then undertook a worldwide survey, to consolidate their Environmental Attitudes Inventory. Together with the above 51 propositions, it will be possible to gain insights on the attitudes of Business School graduates regarding principles and imperatives of *Laudato Si'* and that relate to the construction of assumptions for each dimension of Drucker's “theory of business”.

In fact, to understand the context in which a business operates, it is important to know the ecological limits, cultural and social realities in their communities, and to gain perspectives on local and interconnected global issues, consequences and root causes. Businesses

are also one of the stakeholders that have an impact, positive or negative, on ecosystems and the social context that surrounds them. Similarly of interest are the perceptions of people working in companies and other organizations about the functioning of markets and the economy, as well as the role of technology, influencing the conduct of businesses and their relationships with society and our common home.

Acting in a particular context, businesses need to define a specific mission and how they can contribute to society. Here too, the perceptions, attitudes and positions of the people who make up these organizations have an impact on the way their mission is defined, and topics such as the responsibilities to be assumed regarding the care of the planet and society, the absolutization of profit maximization over everything else and the extent to which their business serves the common good.

Finally, development of necessary skills is essential in the pursuit of the mission of businesses. Since we intend to measure student attitudes towards the imperatives of *Laudato Si'* after they have graduated from Business Schools, the skills that are relevant essentially relate to living an Integral Ecology, such as, the ability to adopt regenerative lifestyles - including in the professional field - and the role of work in integral human development. It is worth noting that the identified propositions related to core competencies are, in general, consistent with the seven competencies for sustainability articulated by Díaz de la Cruz and Valdivieso (2024). These are based on *Laudato Si'*, which are: systemic vision (related to propositions 1, 2, 12, 16); critical thinking (related to propositions 1, 2, 6, 9, 11, 13, 16, 19, 20, 21); capacity for dialogue (related to proposition 21); inclusion (related to propositions 2, 6, 8, 16, 20); proper use of goods (related to propositions 1, 6, 7, 16); creativity (related to propositions 6, 16, 17) and spirituality (related to propositions 5, 11, 14, 15, 22).

Conclusions

In this study it was possible to highlight the disruptive character of the encyclical *Laudato Si'* which, although integrated into the tradition of the social magisterium of the Catholic Church, brings new challenges to every aspect of society, including the business sector. This is because *Laudato Si'* calls for human systems to operate within the finite boundaries of the ecosystems that support all life. Therefore, the way in which management professionals approach operating their business and participate in the call for transformation towards the common good is of critical importance in a time of crises. The educational challenge highlighted by *Laudato Si'* is significant for all Business Schools, where professionals are being prepared to enter the complex realities of working in the business world.

The innovative character of *Laudato Si'* is pointed out by several authors, including those who criticize Pope Francis' perspective. *Laudato Si'* has been received in different ways both inside and outside of the Church. Some consider it a courageous document that provides an "ethical framework" with a "balanced vision of anthropology for the progress of global politics and discussion on the environment" and others see it as a political document on climate change (Anyanwu 2024, p. 52).

Central to *Laudato Si'* is the proposal of 'Integral Ecology' which emphasizes that there are not two separate crises, the social and the environmental, but rather "a complex crisis which is both social and environmental" must be addressed (LS 137). *Laudato Si'* illuminates the interdependence between ecological degradation and poverty (Garcés-Velástegui

and Mora 2024) and the necessity of human beings to take responsibility and take action to care for and protect the Earth (Negedu and Faruna 2024, pp. 2–3).

The paradigm of Integral Ecology brings new ways of seeing, being and living in context in which companies operate, as well as the need for transdisciplinary responses in which the intervention of different stakeholders is essential. To this end, it is necessary to adopt “new convictions, attitudes and forms of life”, which represent significant educational challenges (LS 202). Laudato Si’ illuminates the need to identify human degradation of creation and find ways to reduce human harm (Barrett and Duns 2023), redesigning human systems and education that models inclusive, participatory conditions for flourishing life with all creation. In addition, highlighting the way in which all things are interconnected (Garcés-Velástegui and Mora 2024) and expanding the concept of the common good “to include not only human beings but also common resources and all of creation” (Horodecka and Zuk 2023, p. 4).

In response to the challenges of Integral Ecology, businesses need to consider that human life develops in various facets and the primacy of the human person in the face of the excesses of technocratic manipulation and the functioning of markets (Kennedy and Calleja 2016), responding to Francis’ call for business to address ecological and social realities. As our analysis demonstrated, direct references to business in Laudato Si’ are specifically pointing to the way in which many of these businesses are conducted.

Manifesting as problematic behaviors, clearly technical, political, juridical and social solutions are needed, but above all “a new educational system” (Phan 2023, p. 317). The educational challenge is thus also faced by Business Schools, universities in general (Cuesta-Claros et al. 2022), as well as groups of Higher Education Institutions, particularly universities that foster a humanistic management approach and Catholic institutions, which can play a leading role in responding to the challenges facing societies

Over ten years since the publication of Laudato Si’, it is important to listen to the voices of students, those who have been at the center of education systems and investigate their attitudes after their education in Business Schools. For this, we have identified a set of propositions based on Laudato Si’ principles and imperatives through which it is intended to analyze graduates’ attitudes. The proposed survey has been organized into three categories: context, core competencies and mission drawing on the “theory of the business” by Peter Drucker (Drucker 1998).

This research is relevant not only to generate a collection of data from graduates, but also to systematize the results obtained to ascertain the extent to which Laudato Si’ and Integral Ecology may influence business and management education. In this sense, the propositions listed highlight the relevance of Laudato Si’ for the knowledge and positioning of businesses within the context in which they operate and how they can make a difference within social-ecological realities, as well as identify the necessary skills to pursue their mission.

Future research may comprise: undertaking dialogue with Business Schools regarding draft propositions and seeking their input in order to further develop questions for the proposed survey tool; offering the survey tool to graduates who attended a Business School and are in the workforce; analyzing survey responses in order to draw conclusions about attitudes towards the principles of Laudato Si’; developing recommendations for educational programs and outcomes in Business Schools, inspired by Laudato Si’ and Integral Ecology. In this way this research will continue to study the integration of Laudato Si’ in management

education and how to form students with a deeper awareness of the implications of Integral Ecology.

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