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Abstract: Since proposed by Joh Stuart Mill in 1837, "economic man" has become one of the vital postulates that formed the Neoclassical economics framework. The concept remains a basic assumption in economic policy, despite all the criticism. McCloskey, with a contrast approach called Humanomics made a clear point, arguing that humans are more than a wealth-oriented species. On the other hand, the Islamic worldview emerged with the concept of Homoislamicus, which emphasizes ethics and morality, as scarcity is not more than a Neoclassical fairy tale. Numerous works have covered the comparison between homoeconomicus and homoislamicus. However, a comparative analysis involving humanomics remains largely unexplored. Through a literature-based approach, this study focuses on questioning two fundamental topics: to what extent does the concept of homoeconomicus remain relevant in today's economic context; and what are the ontological and epistemological similarities and divergences of these three concepts. Ultimately, homoeconomicus, despite its criticisms, remains a necessary construct in economic thought—not as a rigid postulate to dictate market behavior, but as an ontological assumption that need to coexist with both humanomics and homoislamicus. While humanomics and homoeconomicus each incorporate moral and ethical considerations, homoislamicus, we argue, functions primarily as an attempt by the Islamic worldview to assert its position within prevailing economic discourses. In this regard, we propose that Muslim economists should now develop authentic terminology and epistemology to move beyond the persistent critique of imitating the homoeconomicus.

Keywords: Homoeconomicus, Humanomics, Homoislamicus

Öz: "Economic man" kavramı, 1837'de John Stuart Mill tarafından ortaya atılmış ve Neoklasik iktisadın temel varsayımlarından biri olmuştur. Eleştirilere rağmen hâlâ ekonomik politikaların dayanağıdır. McCloskey, "Humanomics" yaklaşımıyla insanın sadece servet odaklı olmadığını savunurken, İslamî perspektif Homoislamicus kavramıyla etik ve ahlaka vurgu yapar; kıtlığı ise Neoklasik bir mit olarak görmektedir. Homo economicus ile homoislamicus kavramları arasında birçok karşılaştırmalı çalışma yapılmış olmakla birlikte, bu iki kavrama humanomics'in dahil edilerek gerçekleştirildiği karşılaştırmalı analizler büyük ölçüde ihmal edilmiştir. Bu çalışma, literatür temelli bir

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Contrasting the Homoeconomicus, Humanomics, and Homoislamicus: A Theoretical Overview

yaklaşımla iki temel soruya odaklanmaktadır: Homo economicus kavramı günümüz ekonomik bağlamında ne ölçüde geçerliliğini korumaktadır? Ve bu üç kavramın ontolojik ve epistemolojik benzerlikleri ile farklılıkları nelerdir? Sonuç olarak, homo economicus tüm eleştirilere rağmen iktisadi düşüncede, humanomics ve homoislamicus ile birlikte var olması gereken bir ontolojik varsayım olarak önemini korumaktadır. Humanomics ve homo economicus etik boyutlar taşırken, homoislamicus İslamî bakış açısının iktisadi söyleme katılma çabasıdır. Bu nedenle, Müslüman iktisatçıların artık eleştiriden öteye geçerek özgün bir terminoloji ve epistemoloji geliştirmeleri gerekmektedir.

Anahtar kelimeler: Homoeconomicus, Humanomics, Homoislamicus

Introduction

Despite criticisms and cons, homoeconomicus is still an essential postulate in every economic discussion, and Neoclassical remains an everyday economics science to be taught in most universities worldwide. The postulate argues that every action done by individuals in the economy is rational, measurable, and only aimed at utility maximization. The vast body of prior studies criticizing homoeconomicus—even since its initial introduction by John Stuart Mill—highlights just how ontologically problematic the concept is.

From various perspectives on adressing homoeconomicus, this paper will focus on the assessment from humanomics and Islamic economics. Humanomics aims to reintroduce human values into economics by portraying agents as "humans" rather than "machines". In Islamic economics, however, economic agents are expected to consider not only human values but also divine principles—a view embodied in the concept of Homoislamicus, the Muslim economic agent. By drawing on both humanomics and homoislamicus, this paper offers a distinct paradigmatic framework that differentiates it from prior research.

Using a literature-based approach, this study explores three key areas. First, it revisits the epistemological development of homoeconomicus and the ongoing critiques surrounding it, emphasizing the need to reassess its contemporary relevance. Second, it examines how humanomics and Islamic economics engage with this debate and contrasts their perspectives. Lastly, it highlights the importance of grounding Islamic economics in an authentic theoretical foundation.

Homoeconomicus: Then and Now

Like other classics, Adam Smith and John Stuart Mill attempted to explain the economy in a deductive and relatively simple manner (Nelson, 2006; Persky, 1995; Walker, 1955). The concept of "The Invisible Hand" illustrates that the market will be in equilibrium if each economic agent moves based on rationality (Hill, 2012; Keppler, 2010). In other words, Smith suggested that by merely acting on his

self-interest, homoeconomicus can unintentionally promote public interests (Ng & Tseng, 2008).

Mill himself, who is arguably the father of homoeconomicus described humankind as economic beings who always pursue the drive for wealth (Blaug, 1992; Persky, 1995). In expounding on this concept, Mill was influenced by Jeremy Bentham's thoughts of "pleasure and pain", which underlie Utilitarianism (Viner, 1949). However, both Smith and Mill did not ignore the social and psychological dimensions that can invalidate human rationality. This is what their successors in the Neoclassical group neglected centuries later.

The Classical View

Mill's work, "On the Definition and Method of Political Economy" ([1837] 2007), does include neither the term economic man nor homoeconomicus. Mill indeed confirmed that humans are driven by the desire to be rich when explaining the phenomenon within political economy. Nevertheless, he did not claim that was the only motive (Walker, 1955). Motives namely, aversion to labor, and desire of the present enjoyment of costly indulgences, have a massive impact on pushing human beings against the principle of rationality (J. Mill, [1837] 2007). Persky (1995) explains that the message we can take from Mill's homoeconomicus is that humans are not always greedy or rational. Yet this assumption is still necessary to explain economics as a social science as Mill believes Smith intended (Hollander, 1977).

Smith may not be considered the creator of homoeconomicus or economic man, but his ideas about the relationship between the market and individuals are an essential basis for this discussion. Veblen (1899) argued that Smith's economic man was more adaptive rather than just a wealth and utility-oriented individual. In discussing economics, Smith used the term utility but with a different definition from what is understood in utilitarianism. According to Witztum and Young (2013), the utility offered by Smith can either be the simple colloquial notion of usefulness or the more complex notion of social usefulness. The idea of homoeconomicus, which states that individuals are greedy and selfish in seeking self-interests, is only necessary to explain how markets should work but does not represent how humans actually behave in markets (Nelson, 2006; Veblen, 1899; Sen, 2010).

Neoclassical Distortion

Homoeconomicus was entirely perverted by the Neoclassics with the arrival of the marginalists who based their approach on mathematics and physics (Mirowski,

1984). Yet, the paradigm of what is understood about homoeconomicus today is dominated by Neoclassical interpretations that are far removed from what Mill and Smith postulated initially. Discussion of homoeconomicus, which began with philosophical assumptions of man, has evolved into an algorithm for outcomes dependent on the economist's assumption of what the individual values, then has lost the philosophical, sociological, and culturally grounded inputs (Ng & Tseng, 2008).

Neoclassics was trying to simplify human behavior into models of mathematics (Mccloskey, 1983). This started in the early 1870s, when William Stanley Jevons, Carl Menger, and Léon Walras, each in his way, proposed new foundations of the theory of value that relied on calculations based on the margin (Bee & Desmarais-Tremblay, 2023).

Jevons, for example, was inspired by the principles of rational mechanics and tried to build an economic theory based on a more universal mathematical approach (Maas, 1999; Schabas, 1990). However, Jevons realized that maximization of pleasure (profit) was a self-evident hypothesis or, in other words, an incomplete axiom of economic explanation since it is only indirectly verified through market prices (Zouboulakis, 1997). As if to prove this to Mill, Jevons alternately described his theory as a "calculus of pleasure and pain" and as a "mechanics of utility and self-interest" (Maas, 1999). While Alfred Marshall, despite being considered part of the Neoclassical school along with Jevons, has a different view on this occasion. Marshall endorsed Mill's view that economic man is not selfish since wealth is primarily pursued for the benefit of the family and not only for personal interest (Bee & Desmarais-Tremblay, 2023).

Impossible Rationality

"Economic Rationalism" was first introduced by Weber and Tawney to represent a sphere of commercial activity where moral considerations, beyond the rules of business honesty, are determined by the self-interest (Hossain, 2014). This is where economic man or homoeconomicus came to be identified with "rational man".

After the Neoclassical era, criticism of homoeconomicus rationality continued from Keynesian and Behavioral Economists. John Maynard Keynes argued that rationality is not always feasible given that humans are constantly exposed to uncertainty (Arena & Nasica, 2021). The Neo Keynesians, then criticized the notion that humans are fully informed, which was the basis behind the Neoclassical concept of rationality. The reality that not all individuals in the market have complete in-

formation to make rational decisions is termed asymmetric information (Akerlof, 1970; Dymski, 1993; Stiglitz, 2002).

Even with complete information, individuals may not behave rationally due to psychological factors, as Herbert Simon's (1990) concept of "bounded rationality" explains. Herbert Simon, later followed by Amon Tversky and Daniel Kahneman, became the turning point for the emergence of Behavioral Economics. One of the most influential names in the field, Thaler (2016) even argued that behavioral economics is the next constructive step that needs to be taken in the homoeconomicus discourse.

Infinite Needs against Finite Sources

Homoeconomicus does not stand alone; it is inherently tied to another key postulate: scarcity. Neoclassical sees utility maximization in fulfilling human needs as an increasingly urgent discussion, given that humans live in a reality where economic resources are limited. This is where humans are required to be economically rational beings who are able to make choices to achieve maximum utility with these limited resources. Thus, for example, Kohler (1970) calls economics "the science of scarcity", as well as Laidler and Estrin (1995) declare economics to be "about scarcity". Marginalists capture scarcity as the origin of economics (Matthaei, 1984). Economics is still widely taught as the study of scarcity in many faculties worldwide (Panayotakis, 2013).

Before it became popular in Paul A. Samuelson and William D. Nordhaus' book, "Economics", (1989), the basic idea of Neoclassical scarcity was widely referred to by Lionel Robbins (1935) in his "An Essay on The Nature & Significance of Economic Science", which briefly touched on the relationship between scarcity and economics. This assumption is often used to legitimize individual selfishness on behalf of the interests of many people (Panayotakis, 2013).

Criticism of scarcity includes both the demand (consumption) and supply (production) sides. Veblen (1899), in his "Conspicuous Consumption" theory, captures the tendency of some groups to consume beyond their needs, and in the end, this phenomenon forms an unnatural demand. This is another failure of Neoclassicals who are unable to see that consumption (demand) in reality is influenced by social construction rather than pure human nature (Matthaei, 1984; Panayotakis, 2013). On the supply side, scarcity is, in fact, deemed to produce exploitative activities on the environment by Capitalists. The conceptualization of production as an allocation of resources in order to respond to scarcity has actually led Neoclassical to the

failure of capital accumulation and the neglect of the actual dimensions of environmental damage (Matthaei, 1984).

Humanomics on Homoeconomicus

The efforts to entirely mechanize the economy were widely rebutted by economists in the late twentieth century, such as Deirdre N. McCloskey, Julie L. Nelson, Bart J. Wilson and Vernon L. Smith, who consistently re-questioned the human side of the economy. This humanist approach to economics later became widely recognized as "Humanomics". The term humanomics, since it was first popularized by Bart Wilson in the early 2000s, to this day, has been an important and progressive critique of Neoclassical economics despite being less of a common economic thought in the development of economic science (McCloskey, 2021). The idea of humanomics is straightforward, namely to revisit the human side of economics that has eluded Neoclassical economists for centuries. Bart J. Wilson and Vernon L. Smith, in their phenomenal work, "Humanomics: Moral Sentiments and the Wealth of Nations for the Twenty-First Century" (2019), laid humanomics as the foundation for another branch of economics, Experimental Economics.

Humanomics is not presented as a specific offense to the concept of homoeconomicus, instead it is offered as a general discourse on the necessity of efforts to re-humanize the economy, and humans in the economy. There is a strong belief that humanomics is what Adam Smith originally intended and practiced (McCloskey, 2016). Humanomics is rooted in the ethics of liberalism, which was born and developed in the eighteenth century. The fundamental criticism is how humans in economics have lost their humanity and are considered only as utility-satisfying machines. Economists have ruled out abstract variables such as courage, love, justice, hope, faith, and virtues when interpreting human behavior in economics, which is one of the most proximate reasons why modern economics often fails to explain economic phenomena in the real world (McCloskey, 2011).

Homoeconomicus and Neoclassical Rhetoric

McCloskey (2013) detected that, by using mathematics, the science of Economics has been successfully disseminated more universally and acceptably. Numbers, graphs, curves, calculus, and mathematical models are all part of the Neoclassical rhetoric of discussing economics. An approach that was heavily influenced by the positivistic of the 1930s and 1940s (McCloskey, 1983). McCloskey stated in her work, "Why Economics cannot Explain the Modern World" (McCloskey, 2013),

"The 'mathematics' is merely a metaphorical language that economists understand, and which allows me to chat with them about the economic and social ideas involved without excessive confusion.". By this argument, humanomics proves how Neoclassical tends to be more accepted, as well as successfully able to win the theory contest with other schools of economics since the late nineteenth century (Mirowski, 1984; Nelson, 2006; Schabas, 1990). At the same time, however, it also isolates economics from the deictics and discussions which are the very core of science (McCloskey, 1983; Nelson, 2006).

Humanomics rejects physics and mathematics models as the only appropriate approach to analyzing the economy (McCloskey, 1983; Schabas, 1990). Although rhetoric is based on mathematics, economic phenomena are always inseparable from cultural-linguistic metaphors. In his most phenomenal work, "The Rhetoric of Economics", McCloskey (1983) mentions examples of such metaphors in, among others, "islands" in the labor market or "putty-clay" in the capital market or "lemons" in the commodity market. In McCloskey's two other popular works, "If You're So Smart" (1990) and "Knowledge and Persuasion in Economics" (1994), it can be seen that economics needs metaphors, stories, and epistemologies instead of just numbers, curves and mathematical models.

A renowned economist from the University of Massachusetts Boston, Julie A. Nelson (2006), in her work "Economics for Humans", points out that just because something conforms to the assumptions and logic of mathematics does not make it scientific. By trying to create some sort of "value-free" or "objective" approach that is amenable to mathematical treatment, Neoclassical economics has in fact, unintentionally, devalued concern for human needs, justice and sustainability (Nelson, 2006). Humanomics considers the mathematical approach in Neoclassical as an important and integral part of discussing economics. For Nelson (2006), mathematics in economics is the "body", but at the same time ethics is needed as the "soul" of the economy as well.

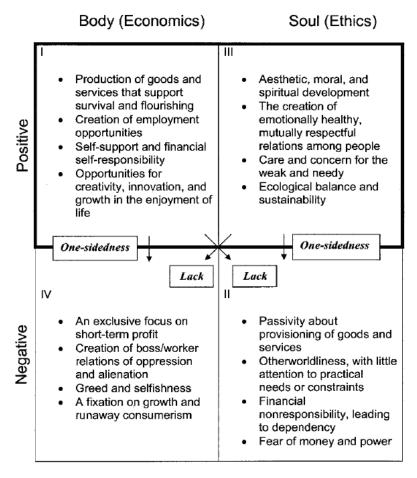


Figure 1: Economics and Ethics **Source:** Nelson, 2006, p. 55

Homoeconomicus' Lack of Ethics

Humanomics casts doubt on whether homoeconomicus is the ideal, expected model of the individual in the economy. In reality, humans may exhibit selfish tendencies, but this should not be normalized as Neoclassical economists appear to endorse. Homoeconomicus appears to be a justification for selfishness. Neoclassical economics dictates that humans must remain greedy and selfish in order for the economy to run. Humanomics considers this a false moral standard and calls for the opposite, where individuals should be guided by a humanity-based sense of ethics and morality (McCloskey, 1990; Nelson, 2006).

The biggest Neoclassical mistake is to assume that individuals who are always oriented towards utility maximization and self-interest will automatically encourage market equilibrium and lead to social welfare (Ng & Tseng, 2008). They misused Adam Smith's "economic man" as a justification for that argument (Smith, 2004). That social welfare is the accumulation of "individual pleasure" (Bruni, 2006). Neoclassicals have consistently ignored the concept of "happiness" as an important part of human beings, and instead, replaced it with utility or pleasure.

In the real world, humans aim to be happy, not to maximize utility (Bruni, 2006). As Amartya Sen (1998) believes, in almost all his writings, where he warns that happiness, in order to be a proxy of a good life, must be translatable into human flourishing, in terms of capabilities and functionings, human rights and freedom. Individuals who lack morality will not contribute to social flourishing. Focusing on self-interest and greed to maximize profits potentially endangers the long-term economic system (Clements, 2013). Humanomics confirms that homoeconomicus fails to reflect actual (or ideally expected) economic actors, both as individuals and firms.

In addressing behavior and decision-making of humans as economic agents, Neoclassical has never been able to scientifically distinguish the "wants" and "needs" (Nelson, 2006). The marginal utility model (and many other approaches in Neoclassical) translates individual decision-making on the grounds of wants-based arguments, while unconsciously allowing the concept of needs to remain undefined (Dolderer et al., 2021). This, for instance, can be noticed through Marshall's works that emphasized wants in explaining the determinants of demand, or Jevons's "pleasure and pain" concept that believed that economics is a matter of dealing with "ordinary wants" (Schabas, 1990). Moreover, in order to deal with wants, humanomics argues that economists should turn their focus from the isolated individual agent to the agent embedded in a social environment, given the fact that most humans' wants are generated by interactions with others (Bruni, 2006).

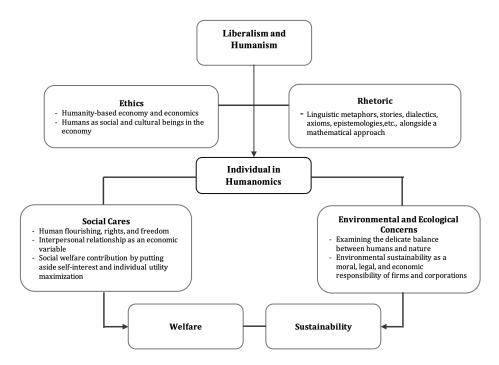


Figure 2: Theoretical and Conceptual Framework of Humanomics

In practice, activities such as charity, volunteerism, and other types of philanthropy are triggered by goodwill to contribute to social welfare by putting aside self-interest and individual utility maximization (Andreoni, 2004; Benson & Catt, 1978). This proves that pleasure, or, more precisely, individual happiness, is not always equivalent to "gaining utility" rather than "giving" (Konow & Earley, 2008). While on the other hand, scams, environmental exploitation, moral hazard, principal-agent problems, asymmetric information, fraud, hoarding and many more are economic violations that are precisely based on efforts of utility and profit maximization (Fuchs & Lingnau, 2024; Menzies et al., 2019; Van Heerden & Blignaut, 1999). It is these two spectrums that the Neoclassical homoeconomicus again has failed to capture.

Furthermore, humanomics argues that companies run "for profit" are not required, either by law or economic "mechanisms". Likewise, companies run on a non-profit or "in the public interest" basis do not guarantee good motives or results (Nelson, 2006). For the Neoclassicals, it seems useless for a firm, for whatever reason, to be willing to incur additional costs in the name of greater social or

environmental responsibility. David Korten, in his work "When Corporations Rule the World" (2001), refers to these nonhuman firms and companies as "aliens" or "machines" that are destructive and far from human control.

The destruction and exploitation of nature occur due to the drive of the wrong economic understanding to achieve the maximum profit. This whole reality is beyond the reach of Neoclassical homoeconomicus. What is expected of 21st-century homoeconomicus is that they should not be free from moral judgment, as well as respect for human values postulated by ethics. As this paradoxically contributes to the achievement of higher profits and increased competitiveness. As Nelson affirmed in closing remarks of "Economics for Human":

The main concern of humanomics is for the economics to be the right channel to achieve general welfare and sustainability, while maintaining the liberty of each individual as long as it does not cause social and environmental harm (Mill, 1859).

Homoislamicus: An Islamic Conceptualization of Economic Man

As a scientific discipline, Islamic economics began to develop in the 1930s when al-Maududi, Sayyid Qutb, and others addressed the Islamic aspects of the economy along with the efforts to establish Islamic banks as a response to the interest-based banking system that is contrary to Islamic teachings. It was only later, around the 1970s, that the term "Islamic economics" was born, which was pioneered by Ismail Raji al-Faruqi, Naquib al-Attas, and others as an effort to islamization of science (Arrahman, 2020).

Islamic economics seeks to provide alternative thinking in developing economic science and systems as an antithesis of conventional economics. Since its emergence, Islamic economics' critique of economics has covered the most fundamental issues, including the characterization of human beings and their interactions in the economy, which can be found in essential studies such as Al-Faruqi (1963) and Nasr (1968). This is why one of the biggest concerns of Islamic Economics is the Neoclassical concept of homoeconomicus.

Taking an oppositional position in the discussion of human behavior in economics, Islamic Economics comes up with homoislamicus to enrich the criticism of homoeconomicus. There is no clear record of who first introduced the term. It can be at least tracked to the writing of Muhammad Nejatullah Siddiqi in 1972, which has since prompted widespread debates that significantly contributed to the development of Islamic economics (Mahomedy, 2013). Muslim economists have elabo-

rated on the character of homo Islamicus as part of the Islamization of economics project (Furgani & Echchabi, 2022; Kuran, 1996).

Islamic Reasonable Behavior

In most cases, Muslim economists relatively accept the term rationality, but with a different context and concept that incorporates Islamic norms and ideas. As the discussion above explains, the Neoclassical concept of rationality is methodologically flawed. Neoclassical rationality limits human decision-making to the pursuit of satisfaction or profit (Blume & Easley, 2008; Hossain, 2014; Syed Agil, 1989).

Thus, decision-making that is not based on these goals, for Neoclassicals, is considered an anomaly that violates the concept of rationality. In fact, rationality should be measured based on goals and purposes (Kirzner, 2000). Siddiqi, as cited by Syed Agil (Syed Agil, 1989), explained that a rational man is a human being who knows his objective and acts intelligently to achieve the objective. The criteria for inclusion in the rational label is the ability to make decisions, act and behave based on reasons and explanations, in which the explanation of the behavior refers to goals, norms, or values (Markič, 2009)

The measure of rationality certainly depends on the purposes and goals to be achieved, as well as the norms and values held by the individual. Whereas from the beginning, the main goal of the homislamicus individual is not the maximization of utility and the fulfilment of self-interest, but the intention of submission to God which will lead to the achievement of ultimate prosperity in this life and the hereafter life (Asutay, 2007; Choudhury, 1986; Zaim, 1992). Thus, homoislamicus is precisely a rational being because he behaves following the goals believed in Islam. Famous Muslim economist, Masadul Alam Choudhry (1986), in his work: "Contributions to Islamic Economic Theory", illustrates:

The belief that there will be an afterlife is a fundamental basis in Islamic teachings (Mahomedy, 2013; Zarqa, 2003). Thus, the reward homoislamicus sought is not always utility but the reward in the next life, Akhira (Choudhury, 1986; Syed Agil, 1989).

Moral Basis of Homoislamicus

The essence of the doctrine that becomes the moral basis of Islamic Economics is Tawhid, which refers to the Oneness and Unity of God (Chapra, 1992). In practice, at some risk of oversimplification, the moral and ethical framework imbued by homoislamicus, in general can be seen in three fundamental dimensions. First,

the individual dimension in which there is a realization that every human being is a servant ('abid) who must be submissive to God. This vertical relationship fences individual human economic behavior within the limits of divine consciousness known as "taqwa" (Choudhury, 1986). By this philosophical approach, individuals who consume food that is prohibited in Islam (haram), for example, alcohol, pork, carrion and others, are considered irrational and contrary to homoislamicus rationality (Syed Agil, 1989).

Second, the societal dimension, which relates to the contribution of homoislamicus to well-being (falah) through the fulfillment of satisfaction of both material and spiritual needs (Umar Chapa, 1992). The manifestation of this is extensive because it covers all interpersonal and social domains, including altruism and Islamic philanthropy (zakat, sadaqa, and infaq), and denunciation of social injustice such as extravagance in consumption (israf), as well as denunciation of various types of disruption in business activities such as fraud (gharar), hoarding (ihtikar), demand manipulation (bai' najasy), price manipulation (ghabn), and more. This moral position is based on Islamic socio-collective values, for example, the universal brotherhood between fellow human beings known as ukhuwwa, and helping each other or ta'awun.

Third is the environmental dimension, which relates to human ecological commitment as God's vicegerent (*khalifa*) on earth. Homoislamicus is obliged to ensure the preservation and sustainability of the universe and repudiate *fasad*, namely exploitation and destruction of the environment. In Islam, humans are given trust by God to utilize, manage, and maintain the earth and its surroundings (Gayatri, 2017).

Discussion of human interaction with the environment has become an essential topic in the development of Islamic economics from the earliest days until today. For instance, the essential work "Man and Nature" by Seyyed Hossein Nasr (Nasr, 1968) highlights the importance of building human equilibrium with nature in order to achieve ultimate peace. Nasr (1968) argues that various economic problems today are caused by human domination of nature and a materialistic conception of nature based on lust and a sense of greed. This is the crisis of modern man today, where there are economic and ecological distortions as a result of human failure to maintain harmony with nature (Gayatri, 2017). Homoislamicus is required to bring this balance as a form of implementation as *khalifa*.

Needs, Wants, and Scarcity

Neoclassical believes scarcity as the origin of economics (Choudhury, 1986; Estrin & Laidler, 1995; Kohler, 1970; Matthaei, 1984). The rationality of homoeconomicus occurs as a logical consequence of the concept of scarcity. Islamic economics disputes the Neoclassical view that scarcity is absolute and a natural economic necessity.

One of the Muslim economic scholars who thinks so is an Iranian thinker, Baqir as-Sadr ([1981] 2022). Everything in the dimension of life, including the economy, has been created in accordance with the provisions of its precise and accurate measurements as written in the Qur'an surah Hud: 6; Furqan: 2; and al-Qamar: 49. Hence, every human being has been determined with precision and accuracy the sufficiency of each of his needs (Choudhury, 1986). Islamic economics dismisses the Neoclassical view of scarcity, both in terms of demand and supply. Contrary to what the Neoclassicals believe, Islamic Economics asserts that natural resources are unlimited, while the actual needs of human beings are limited (Abdul Mannan, 1982; as-Sadr, 1981; Choudhury, 1986).

In the concept of *khalifa*, Islamic Economics believes that God has entrusted the natural world with its unlimited resources for humans to utilize wisely according to their needs (Abdul Mannan, 1982). Nature with all its resources will never run out to meet human needs, because in essence these needs are limited. Baqir as-Sadr ([1981] 2022) actually proved that human needs are limited by using the Neoclassical "the law of diminishing marginal utility" approach. Related to this, al-Ghazali in Islahi and Ghazanfar (2011) promoted three hierarchies of consumption, namely *dharuriyah* (necessities), *hajiyah* (comfort) and *tahsaniyah* (luxuries). The infinite ones are wants related to human gluttony, whereby the fulfillment of one human want will open up to the following wants (Abdul Mannan, 1982).

The wants associated with unlimited human dissatisfaction is described in the words of Prophet Muhammad, peace be upon him in Sahih Bukhari (1997) number 6438, "If the son of Adam were given a valley full of gold, he would love to have a second one; and if he were given the second one, he would love to have a third, for nothing fills the belly of Adam's son but dust. ...". If human beings base their economic activities on wants rather than needs, then even infinite natural resources will not be sufficient (Khan, 1984).

Islamic economics considers scarcity as a relative economic phenomenon that occurs in a short period of time and under certain circumstances (Ahmed, 2002). Generally, scarcity in Islamic economics can occur in two states of affairs. First,

there is a human failure in managing natural resources related to immoral practices (Khan, 1984). For example, exploitation that causes degradation of the abundance of factors of production in a particular spot, or hoarding and monopoly in the form of unhealthy accumulation of factors of production by certain companies that result in inequality in distribution and production.

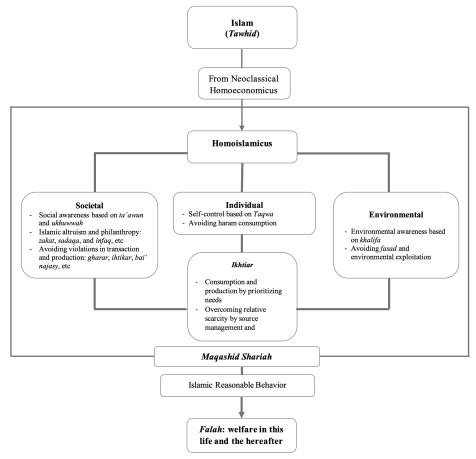


Figure 3: Theoretical and Conceptual Framework of Homoislamicus

Second, scarcity naturally occurs as a natural condition for testing human beings as described in the Qur'an surah al-Baqarah: 155 and Yusuf: 46-49, that under certain conditions, humans will be afflicted with shortages and constraints of resources that occur naturally according to God's will. This condition aims to see how human efforts (*ikhtiar*) in overcoming this obstacle, or about human behavior in making choices and managing resources (Ahmed, 2002; Arif, 1985; Hasan, 2011).

Homoislamicus, Homoeconomicus, and Humanomics

Commonality and Differences

Humanomics and Islamic Economics both draw on moral and ethical perspectives in their critique of homoeconomicus. However, the humanomics critiques mainly target the Neoclassic rigidity and value-flawed approach. Despite emerging from two different philosophies of reasoning, the view of the individual by humanomics, and Islamic Economics with its homoislamicus, both view sustainability and the public welfare as urgent matters. In ecological and social spheres, both Islamic Economics and humanomics urge humans to be able to contribute by putting aside personal needs.

Table 1Theoretical Comparison

Point of difference	Homoeconomicus	Individual in	Homoislamicus
	D ::::::::	1141114110111100	T.1. (O. '
Root of	Positivistic,	Liberalism,	Islam (Qur'an
Epistemology	Utilitarianisme	Humanism	and Hadist),
			Neoclassical
			homoeconomicus
Initiators and	William Stanley	Deirdre McCloskey,	Muhammad
promoters	Jevons, Alfred Mar-	Julie L. Nelson,	Nejatullah Siddiqi,
	shall, Carl Menger,	Bart J. Wilson,	Ismail Raji al- Fa-
	Léon Walras (Neoc-	Vernon L. Smith	ruqi, Syed Omer
	lassical Marginalist)		Syed Agil, Umar
			Chapra
Dominant	Physics and	Ethics and	Islamic Moral-ba-
Methodologi-	Mathematics	Rhetorics	sed (tawhid)
cal approach			
Motives	Individual self-inte-	Courage, love,	Taqwa and submis-
	rest and wants	justice, hope, faith,	sion to God
		virtues (interper-	
		sonal Humanistic	
		501141 11411141115616	
		variables)	

Ends and ulti- mate goals	Utility maximization, profit maximization, economic growth	Happiness, welfare, sustainability	Maslahah, maqasid shari'ah, and falah
Behavior towards scarcity	Accumulation of resources-based capital capacity to enable market competition	Ensures ecological and environmental sustainability at individual and social levels.	Responsible for ecological sustainability and fair resource distribution in line with shari'ah

Source: Author's own

The element of divinity in the homoislamicus moral view defines individual level behavior. Whereas according to humanomics, every human being has his liberty and is free to do anything to himself, as long as he does not incur ecological and social harm (Creutzig, 2020; Mill, 1859). Homoislamicus is required to refrain from consuming alcohol and pork, not only because it is considered potentially harmful to the individual, but more fundamentally, because it is prohibited by Islam.

Homoislamicus moral boundaries, on the other hand, cover whether an economic action is permissible by Islam or not. Homoislamicus moral guidelines are a manifestation of human intentions and submissive actions to God. This divine spirituality is the distinguishing border of Individual morality in humanomics and homoeconomicus.

 Table 2

 Contextual and Behavioral Comparison

Context	Behavior			
	Homoeconomicus	Individual in	Homoislamicus	
		humanomics		
Consumption	Driven by utility	Emphasizing sen-	Based on needs	
	and self-interest	sitivity to human	rather than wants,	
	(e.g., purchasing	values and ecologi-	grounded in Isla-	
	luxury goods to sig-	cal sustainability	mic values (e.g.,	
	nal social status).	(e.g., vegetarian	avoiding consump-	
		consumption	tion of alcohol and	
		behavior).	pork).	

Production	Exploitation and	Prioritizing eco-	A response to so-
	monopolization of	logical and environ-	cietal consumption
	resources for maxi-	mental sustainabi-	needs (e.g., essen-
	mum profit (e.g., a	lity (e.g., synthetic	tial resources such
	single firm domina-	meat production	as water, oil, and
	ting the market and	and the promoti-	other key commo-
	controlling prices).	on of renewable	dities should be
		energy).	managed by the
			state).

Source: Author's own

Another difference between humanomics and Islamic Economics in assessing the notion of homoeconomicus also lies in the methodological context. Muslim economists seem to tolerate the extremes of the Neoclassic mathematical approach. Unlike humanomics, most of its criticism of homoeconomicus revolves around the Neoclassical exploration of mathematics which is considered excessive, thereby degrading human, social and cultural variables. What Muslim economists do is comparatively more about islamizing homoeconomicus into homoislamicus in compliance with Islamic values and ethics.

Homoislamicus: Islamization or Imitation

Apart from the methodological debate about whether or not the Islamization of homoeconomicus is relevant to homoislamicus, there are at least two important notes that can be a strong reason to rethink the concept and use of homoislamicus terminology in Islamic economic studies.

First, the question of its suitability with the principles of Islam itself. So far, in terms of definition, the term homoislamicus tends to be perceived as a characterization of a Muslim in economics (Dilek et al., 2017; Misfah Bayuni & Srisusilawati, 2022). Homoislamicus means a Muslim who runs business and economic activities following Islamic principles and values. One of the basic principles in Islam is inclusivity and universality (*rahmatan lil'alalamin*), which in this context offers a worldview and ethical guidance in economics that is not only exclusive to Muslims, but also applicable to all of humanity, including non-Muslims (see e.g. Annova & Fitriani, 2019; Hannas & Rinawaty, 2018).

Islam wants the economy to be infused with the value of *ibadah*, but in practice, the economy is a social affair whose scope of discussion is included in the study of

mu'amalat. Hence, the universality of Islamic values in the economy, especially in the social-ecological dimension, is relevant to be imbued by non-Muslims, who are an integral part of the world's economic life.

Second, the islamization of the term homoislamicus seems forced because it tends not to consider how problematic homeconomicus is as a postulate. Homoislamicus is a product of Islamization that is becoming scattered and sporadic because it is based on the foundation of a theoretically questionable postulate. In the end, homoislamicus is relatively considered "disconnected," "incoherent," "disorder", and "confusing" due to the fact that it contains two contradictions, which appear more as a reactive response and a partial discussion (Sholihin et al., 2023).

For these two arguments, it has become increasingly urgent for Muslim economists to develop an authentic terminology in alignment with Islamic views, instead of sticking to the flawed and ambiguous Neoclassic imitation product. Considering the perfection of Islamic teachings, this should not be an arduous task. For example, Ibn 'Arabi has done this using the Sufism paradigm, where he came up with the term "Insan al-kamil" (the perfect human), to explain the concept of the ideal human in the Islamic worldview (Davids & Waghid, 2019). Alternatively, in a more economy-specific context, the term homoislamicus or Islamic man can be replaced with the term "Ibad al-Rahman", in accordance with the ideal human profile in Surah al-Furqan verse 63.

Conclusion

This research reinforces that both humanomics and homoeconomicus adhere to moral and ethical principles. The commonality of humanomics and homoislamicus in concering sustainability and welfare is at least partly the reason why the Islamization of science is possible as long as it does not contradict the principles and values of Islam. The dominance of moral and ethical aspects is the reason why Mehmet Asutay (2013) prefers to use the term Islamic Moral Economy.

Unfortunately, the completeness of homoislamicus conceptually and theoretically in no way can cancel out the fact that it is terminologically ambiguous. The term homoislamicus may still be retained, but it is nothing more than an attempt by the Islamic world to remain involved and relevant in the theoretical discussion of economic science studies, as this is one of the goals of Ismail Raji al-Faruqi, Muhammad Nejatullah Siddiqi, Naquib al-Attas, and others when islamizing economic science. Nevertheless, beyond that, it is likely time for Muslim economists to

provide authentic terminology and epistemology (such as 'ibad al-Rahman or insan al-kamil) so that they can be genuinely relieved of the accusation of homoeconomicus imitation (Mahomedy, 2013).

There is indeed nothing wrong with the islamization of science, but in this case, the concept of homoislamicus is apparently trapped in trying to distinguish itself from homoeconomicus, so that the methodological and terminological ambiguity becomes unavoidable. Terms and terminology are part of economic rhetoric that cannot be underestimated as humanomics has emphasized. The development of Islamic Economics as a philosophical view of science and system is only possible if there is theoretical, methodological, ethical, and rhetorical harmony.

Meanwhile, with all the criticisms and doubts attached to homoeconomicus, it becomes increasingly questionable why this postulate remains one of the forefronts in constructing the Neoclassical school or even economics in general. Peter Fleming (2017) and many other modern economists have argued (see e.g. Gowdy & Iorgulescu Polimeni, 2005; Johansson-Stenman, 2006), that perhaps homoeconomicus has long been extinct or even never really was born. Further studies on the conceptualization of humans and their behavior in the economy are becoming increasingly urgent to continue to be undertaken in order to rethink the economic approach in dealing with humans who are constantly evolving.

References

- Abdul Mannan, M. (1982). Scarcity, Choice and Opportunity Cost: Their Dimensions in Islamic Economics. *King Abdulaziz University Press*.
- Ahmed, Habib. (2002). Theoretical foundations of Islamic economics. *Islamic Research and Training Institute, Islamic Development Bank*.
- Akerlof, G. A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. The Quarterly Journal of Economics, 84(3), 488–500. https://doi.org/10.2307/1879431
- Al-faruqi, i. R. (1963). On The Raison D'etre Of The Ummah. *Islamic Studies*, 2(2), 159–203. http://www.jstor.org/stable/20832682
- Andreoni, J. (2004). Philanthropy. Department of Economics University of Wisconsin.
- Annova, F., & Fitriani, S. (2019). Applying the Concept of Islam Rahmatan Lil'alamin Through Arabic Learning to Student in STIT Syekh Burhanuddin Pariaman Sumatera Barat. *KnE Social Sciences*, 3(15), 127. https://doi.org/10.18502/kss.v3i15.4360

- Arena, R., & Nasica, E. (2021). Keynes's Methodology and The Analysis of Economic Agent Behavior in A Complex World. *Revue d'Economie Politique*, 132(3), 371–402. https://doi.org/10.3917/redp.313.0053
- Arif, M. (1985). Toward a Definition of Islamic Economics: Some Scientific *Considerations. J. Res. Islamic Econ* (Vol. 2, Issue 2).
- as-Sadr, M. B. (2022). Iqtisaduna (Our Economics) Volume One (K. J. Shubber, Ed.). *Al-Bureauāg Publications*.
- Asutay, M. (2007). Conceptualization of The Second Best Solution in Overcoming The Social Failure Of Islamic Banking And Finance: Examining The Overpowering Of Homoislamicus by Homoeconomicus. *IIUM Journal of Economics and Management* (Vol. 15, Issue 2).
- Asutay, M. (2013). Islamic Moral Economy as The Foundation of Islamic Finance. In *islamic finance in europe: Towards a Plural Financial System* (pp. 55–63). *Edward Elgar Publishing*. https://doi.org/10.4337/9781781002513.00014
- Bee, M., & Desmarais-Tremblay, M. (2023). The Birth of Homo Œconomicus: The Methodological Debate On The Economic Agent from J. S. Mill to v. Pareto. *Journal of the History of Economic Thought*, 45(1), 1–26. https://doi.org/10.1017/ S1053837221000535
- Behdad, S. (1989). Property Rights in Contemporary Islamic Economic Thought: A Critical Perspective. *Review of Social Economy*, 47(2), 185–211. https://doi.org/10.1080/00346768900000020
- Benson, P. L., & Catt, V. L. (1978). Soliciting Charity Contributions: The Parlance of Asking for Money. *Journal of Applied Social Psychology*, 8(1), 84–95. https://doi.org/10.1111/j.1559-1816.1978.tb00767.x
- Blaug, M. (1992). The methodology of economics or How Economists Explain Second Edition. *Cambridge University Press*
- Blume, L. E., & Easley, D. (2008). The New Palgrave Dictionary of Economics: *Volume 1 8* (pp. 5396–5405). Palgrave Macmillan UK. https://doi.org/10.1007/978-1-349-58802-2_1387
- Bruni, L. (2006). Civil Happiness: Economics and Human Flourishing in Historical Perspective. *Routledge*. https://doi.org/10.4324/9780203488119
- Bukhārī, M. ibn I., خان، محمد محسن , Khan, M. M., & بخارس، محمد بن اسماعيل. (1997). The translation of the meanings of Sahîh al-Bukhâri : Arabic-English. Darussalam.
- Chapra, M. U. (1992). Islam and the economic challenge. Islamic Foundation.
- Choudhury, M. A. (1986). Contributions to Islamic Economic Theory: A Study in Social Economics. *Macmillan*.

- Clements, M. T. (2013). Self-Interest vs. Greed and the Limitations of the Invisible Hand. The American Journal of Economics and Sociology, 72(4), 949–965. https://doi. org/10.1111/ajes.l2026
- Creutzig, F. (2020). Limits to Liberalism: Considerations for the Anthropocene. Ecological Economics, 177, 106763. https://doi.org/10.1016/j.ecolecon.2020.106763
- Davids, N., & Waghid, Y. (2019). Ibn al-Arabi's Idea of Al-insan Al-kamil (the Perfect Human) and Democratic Education. In Democratic Education and Muslim Philosophy (pp. 71–79). Springer International Publishing. https://doi. org/10.1007/978-3-030-30056-2_7
- Dilek, S., Küçük, O., & Özdirek, R. (2017). Homo Economicus Mu? İslami İnsan mı? Uluslararası Ekonomik Araştırmalar Dergisi, 3(4), 635–641. https://dergipark.org.tr/ tr/pub/ead/issue/48244/610749
- Dolderer, J., Felber, C., & Teitscheid, P. (2021). From neoclassical economics to common good economics. Sustainability (Switzerland), 13(4), 1–20. https://doi.org/10.3390/ su13042093
- Dymski, G. A. (1993). Keynesian Uncertainty and Asymmetric Information: Complementary or Contradictory? Journal of Post Keynesian Economics, 16(1), 49-54. https://doi.org/10.1080/01603477.1993.11489968
- Estrin, S., & Laidler, D. E. W. (1995). Introduction to Microeconomics (4th ed.). Harvester Wheatsheaf.
- Fuchs, F., & Lingnau, V. (2024). The Homo Economicus as a Prototype of a Psychopath? A Conceptual Analysis and Implications for Business Research and Teaching. Journal of Business Ethics. https://doi.org/10.1007/s10551-024-05638-7
- Furqani, H., & Echchabi, A. (2022). Who is Homo Islamicus? A Qur'ānic perspective on the economic agent in Islamic economics. ISRA International Journal of Islamic Finance, 14(2), 206–220. https://doi.org/10.1108/IJIF-05-2021-0102
- Gayatri, E. (2017). Bridging Ecology And Economy Through Islamic Ethics Of Stewardship. Jurnal Ekonomi & Studi Pembangunan, 18(2). https://doi.org/10.18196/ jesp.18.2.4020
- Ghazanfar, M., & Islahi, A. A. (2011). Economic Thought of Al-Ghazali. Scientific Publishing Centre.
- Gowdy, J. M., & Iorgulescu Polimeni, R. (2005). The death of homo economicus: is there life after welfare economics? International Journal of Social Economics, 32(11), 924– 938. https://doi.org/10.1108/03068290510623771
- Hannas, Dr., & M.Th., R. (2018). Islam Rahmatan Lil 'Alamin. Journal Kerugma, 1(1), 1-18. https://doi.org/10.33856/kerugma.v1i1.50

- Hasan, Z. (2011). Scarcity, self-interest and maximization from Islamic angle Scarcity. MPRA Paper 29414, University Library of Munich.
- Hill, L. (2012). Adam Smith on thumos and irrational economic "man." European Journal of the History of Economic Thought, 19(1), 1–22. https://doi.org/10.1080/09672561003632550
- Hollander, S. (1977). Adam Smith and Self-Interest Axiom. In *The Journal of Law & Economics* (Vol. 20, Issue 1).
- Hossain, B. (2014). Economic Rationalism and Consumption: Islamic Perspective Economic Rationalism and Consumption: Islamic Perspective. In *International Journal of Ethics in Social Sciences* (Vol. 2, Issue 2). https://www.researchgate.net/publication/338293754
- Jevons, W. Stanley. 1862. Notice of a General Mathematical Theory of Political Economy. Report of British Association for the Advancement of Science Section F. 158–159.
- Johansson-Stenman, O. (2006). A Note on the Risk Behavior and Death of Homo Economics. Working Papers in Economics 221 Department of Economics University of Gothenburg.
- Kahneman, D. (2003). Maps of Bounded Rationality: Psychology for Behavioral Economics. The American Economic Review, 93(5), 1449–1475. http://www.jstor.org/stable/3132137
- Keppler, J. H. (2010). Adam Smith and the Economy of the Passions (R. Chase, Ed.). *Routledge*. https://doi.org/10.4324/9780203847565
- Khan, M. A. (1984). Islamic Economics: Nature and Need. *Journal of Research in Islamic Economics*, 1(2), 51–55.
- Kirzner, I. M. (2000). Human Nature and the Character of Economic Science The Historical Background of the Misesian Perspective. *The Harvard Review of Philosophy VIII*.
- Kohler, H. (1970). Economics: The Science of Scarcity. *Dryden Press*.
- Konow, J., & Earley, J. (2008). The Hedonistic Paradox: Is Homo Economicus Happier? *Journal of Public Economics*, 92(1–2), 1–33. https://doi.org/10.1016/j.jpubeco.2007.04.006
- Korten, D. C. (2001). When Corporations Rule the World (2nd ed.). *Berrett-Koehler Publishers*.
- Kuran, T. (1996). The Discontents of Islamic Economic Morality. *The American Economic Review*, 86(2), 438–442. http://www.jstor.org/stable/2118166

- Maas, H. (1999). Mechanical Rationality: Jevons and the Making of Economic Man. In Stud. Hist. Phil. Sci (Vol. 30, Issue 4).
- Mahomedy, A. C. (2013). Islamic economics: Still in search of an identity. International Journal of Social Economics, 40(6), 556-578. https://doi. org/10.1108/03068291311321857
- Markič, O. (2009). Rationality And Emotions In Decision Making. In Interdisciplinary Description of Complex Systems (Vol. 7, Issue 2).
- Matthaei, J. (1984). Rethinking Scarcity: Neoclassicism, NeoMalthusianism, and NeoManrsm. Review of Radical Political Economics, 16(2-3), 81-94. https://doi. org/10.1177/048661348401600204
- Mccloskey, D. N. (1983). The Rhetoric of Economics. Journal of Economic Literature: Vol. XXI.
- McCloskey, D. N. (1990). If You're So Smart: The Narrative of Economic Expertise. University of Chicago Press.
- McCloskey, D. N. (1994). Knowledge and Persuasion in Economics. Cambridge University Press. https://doi.org/10.1017/CBO9780511599347
- McCloskey, D. N. (2011). Bourgeois Dignity: Why Economics Can't Explain the Modern World. *University of Chicago Press*.
- McCloskey, D. N. (2013). Why Economics cannot Explain the Modern World. Economic Record, 89(S1), 8-22. https://doi.org/10.1111/1475-4932.12043
- Mccloskey, D. N. (2016). Adam Smith Did Humanomics: So Should We. In Eastern Economic Association meetings International Adam Smith Society.
- McCloskey, D. N. (2021). Bettering Humanomics: A New, and Old, Approach to Economic Science (Vol. 3). University if Chicago Press.
- Menzies, G., Hay, D., Simpson, T., & Vines, D. (2019). Restoring Trust in Finance: From Principal-Agent to Principled Agent. Economic Record, 95(311), 497-509. https:// doi.org/10.1111/1475-4932.12494
- Mill, J.S., Hausman, D.M. (2007). On the Definition and Method of Political Economy. In The Philosophy of Economics: An Anthology. Cambridge University Press. 41–58. https://doi.org/10.1017/CBO9780511819025.003
- Mill, J.S. (1859). On Liberty. Batoche Books Limited.
- Mirowski, P. (1984). Physics and the "Marginalist Revolution. Cambridge Journal of Economics, 8(4), 361-379.
- Misfah Bayuni, E., & Srisusilawati, P. (2022). Human Perspectives as Homo Islamicus and Homo Economicus towards Money. Advances in Social Science, Education and Humansitic Reearch.

- Muhammad, S. M., & Hanapi, M. S. (2019). Consumerism Rationality Concept According To Maqasid Syariah. *International Journal of Academic Research in Business and Social Sciences*, 9(4). https://doi.org/10.6007/ijarbss/v9-i4/5820
- Nelson, J. A. (2006). Economics for Human. University of Chicago Press.
- Ng, I. C. L., & Tseng, L. (2008). Learning to be Sociable: The Evolution of Homo Economicus. *American Journal of Economics and Sociology*, 67(2), 265–286.
- O'Boyle, E. J. (2009). The Origins of Homo Economicus: A Note. *History Of Economic Thought And Policy*, 1, 195–204. https://doi.org/10.3280/SPE2009-001013
- Panayotakis, C. (2013). Theorizing Scarcity: Neoclassical Economics and its Critics. *Review of Radical Political Economics*, 45(2), 183–200. https://doi.org/10.1177/0486613412458649
- Persky, J. (1995). Retrospectives: The Ethology of Homo Economicus. *Journal of Economic Perspectives*, 9(2), 221–231. https://doi.org/10.1257/jep.9.2.221
- Peter Fleming. (2017). The Death of Homo Economicus: Work, Debt and the Myth of Endless Accumulation. *Pluto Press*.
- Robbins 1898-1984., L. R. (1935). An essay on the nature and significance of economic science (2nd rev. ed). *Macmillan*.
- Sabahattin Zaim. (1992). İslâm-İnsan Ekonomi. Yeni Asya Yayınları.
- Samuelson, P. A. & Nordhaus, W. D. (1989). Economics. (13th ed.). McGraw-Hill.
- Schabas, M. (1990). A World Ruled by Number: William Stanley Jevons and The Rise of Mathematical *Economics. Princeton University Press*.
- Sen, A. (1998). Mortality as an Indicator of Economic Success and Failure. *The Economic Journal*, 108(446), 1–25. https://doi.org/10.1111/1468-0297.00270
- Seyyed Hossein Nasr. (1968). Man and Nature: The Spiritual Crisis in Modern Man. George Allen & Unwin Ltd.
- Sholihin, M., Sugiyanto, C., & Susamto, A. A. (2023). A systematic review on homo Islamicus: classification and critique. *Islamic Economic Studies*, 30(2), 121–142. https://doi.org/10.1108/ies-11-2022-0043
- Siddiqi, M. N. (1972). The economic enterprise in Islam (1st ed.). Islamic Publications.
- Simon, H. A. (1990). Bounded Rationality. In J. Eatwell, M. Milgate, & P. Newman (Eds.), Utility and Probability (pp. 15–18). *Palgrave Macmillan UK*. https://doi.org/10.1007/978-1-349-20568-4 5
- Sen, A. (2010). Adam Smith and the contemporary world. *Erasmus Journal for Philosophy and Economics*, 3(1), 50. https://doi.org/10.23941/ejpe.v3i1.39
- Smith, V. L. (2004). Human Nature: An Economic Perspective. Daedalus, 133(4), 67-76.

- Smith, V. L., & Wilson, B. J. (2019). Humanomics: Moral Sentiments and the Wealth of Nations for the Twenty-First Century (1st ed.). Cambridge University Press. https:// doi.org/10.1017/9781108185561
- Stiglitz, J. E. (2002). *Information and the Change in the Paradigm in Economics*. The American Economic Review, 92(3), 460–501. http://www.jstor.org/stable/3083351
- Syed Agil, S. O. (1989). Rationality in Economic Theory: A Critical Appraisal. *Iium Journal of Economics and Management*, 2(2), 79–94.
- Thaler, R. H. (2016). Behavioral Economics: Past, Present, and Future. *American Economic Review*, 106(7), 1577–1600. https://doi.org/10.1257/aer.106.7.1577
- Van Heerden, J. H., & Blignaut, J. N. (1999.). On the Shady Side of Economics. In 208 Sajems Ns (Vol. 2).
- Veblen, T. (1899). The Theory of Leisure Class. B. W. Huebsch.
- Viner, J. (1949). Bentham and J. S. Mill: The Utilitarian Background. *The American Economic Review*, 39(2), 360–382. http://www.jstor.org/stable/1812738
- Walker, K. E. (1955). The Development Of The Concept Of Economic Man. In Source: Review of Social Economy (Vol. 13, Issue 1).
- Witztum, A., & Young, J. T. (2013). Utilitarianism and the role of utility in Adam Smith. European Journal of the History of Economic Thought, 20(4), 572–602. https://doi.org/10.1080/09672567.2011.592846
- Zarqa, M. (2003). Islamization of Economics: The Concept and Methodology. *Journal of King Abdulaziz University-Islamic Economics*, 16(1), 3–42. https://doi.org/10.4197/islec.16-1.1
- Zouboulakis, M. S. (1997). L'individualisme méthodologique de Popper estil défendable? *Social Science Information*, 36(3), 493–505. https://doi.org/10.1177/053901897036003005