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BEYOND COMFORT: UNMASKING THE SYNERGY BETWEEN HUMAN NEEDS AND ENVIRONMENTAL BEHAVIOUR

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Abstract

This research empirically investigated the relationship between environmental behaviour [EB] and meeting human needs based on Maslow's Hierarchy of Needs [HON] within the realm of Subjective Well-Being [SWB] and Human Interdependence [HI]. Research Questions: Does EB increase when human needs are conveniently satisfied? Can EB increase even if human needs are unmet, and if so, which human needs have little effect on EB? Purpose: This paper determines the variance of EB across the convenience and difficulty of meeting human needs. Approach: Mann-Whitney U test was conducted to determine the variance of EB across the convenience and difficulty of meeting 24 human needs. Findings: EB significantly increased with the convenience of meeting 13 human needs. Neither convenience nor difficulty of addressing the other 11 human needs affect EB, indicating their unlikeliness to have an impact on EB. Furthermore, EB can evolve independently of meeting human needs.

Keywords: environmental behaviour, human needs, subjective well-being, human interdependence with the environment

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INTRODUCTION

This paper examined the statistical interaction between meeting human needs and environmental behaviours. It significantly contributes to the ongoing research on Human Interdependence with the Environment [HIE] by expanding upon previously published papers. This effort broadens the continuing investigation in the field of positive psychology, specifically focusing on Human Interdependence [HI], Subjective Well-Being [SWB], and Maslow's Hierarchy of Needs [HON].

HUMAN INTERDEOENDENCE

A growing body of research has shown a fresh viewpoint on Human Interdependence [HI] as an essential aspect driving long-term Subjective Well-Being [SWB]. The latter describes an individual's subjective rating of happiness, well-being, and life satisfaction by emphasising the emotional, judgmental, and psychological dimensions. While SWB focuses on present well-being assessments, HI is future-oriented. It is based on the concept that changes in one's well-being are inextricably related to changes in the well-being of those around them as a result of their contributions. This suggests that the contributions one makes to others have a favourable effect on their SWB. Several authors strongly believe that HI plays an important role in promoting long-term well-being (Dirzyte & Valatka, 2023; Isham et al., 2022; Garcia et al., 2015; Kjell, 2011).

The features of HI comprise both internal feelings and perspectives towards the surroundings. These characteristics include belief systems, learning experiences, daily routines, involuntary acts, and deliberate behaviours that cause changes in the surrounding environment and, as a result, influence individuals' sustainable SWB. HI is defined in two contexts: Human Interdependence with Other Humans [HIH] and Human Interdependence with the Environment [HIE]. The two contexts can be stretched into four dimensions, as seen in Figure 1.

Within the context of a more comprehensive scientific research (Abu Bakar et al., 2020a; Abu Bakar et al., 2020b; Abu Bakar et al., 2018; Abu Bakar et al., 2017a; Abu Bakar et al., 2017b), Environmental Behaviour (EB) has been propounded as the third component of HIE. Conversely, it stands as the subject of this paper.

ENVIRONMENTAL BEHAVIOUR

Environmental Behaviour [EB] emphasises engagement with the surroundings, execution of sustainable roles and tasks, offering environmental skills, and practising environmental responsibilities. It comprises several traits, such as careful and conscious decision-making, smart consumerism, recycling, energy-saving initiatives, and waste handling (Abu Bakar et al., 2020a; Abu Bakar et al., 2020b).

HI DIMENSIONS	Human Interdependence with other Humans (HIH)	Human Interdependence with the Environment (HIE)
DIMENSION 1	Personal Empowerment (PE)	Eco-Personality & Lifestyle (PL)
Lifestyles, personality, inner-strength, willpower, wisdom, awareness, and life prospects.	Focus And Resilience, Sense of Control, Self-Determination, Goal Orientation and Self-Improvement	Ecological Mindset, Collectivistic Cultures, Modesty and Moderation in Material Pursuits, and Environmental Mindfulness.
DIMENSION 2	Positive Relationship (PR)	Interaction With Nature (IN)
Intimacy, closeness, familiarity, empathy, affection, voluntary and involuntary interactions.	Affection, Compassion, Forgiveness, Ability to Tolerate Others, Sense of Inclusion and Self-Regulation.	Closeness to Nature, Knowledge of and Empathy Towards Nature, And Health Associated Attributes in Relation to Surroundings.
DIMENSION 3	Organizational Opportunity (OO)	Environmental Behaviour (EB)
Engaging with the surrounding, executing roles or tasks, proving skills and responsibility.	Articulatory and Versatility, Initiatives of Positive Interactions and Cooperative Engagements towards Professional Growth.	Careful and Conscious Decision-Making, Smart Consumerism, Recycling, Energy-Saving Initiatives, and Waste Handling.
DIMENSION 4	Community Movement (CM)	External Condition (EC)
Attitude towards circumstances, interpersonal behaviours with the larger public, etc.	Proactivity, Public Participation, Friendliness, Openness, Respect for Diversity and Sense of Belonging.	Attitudes towards Surroundings Convenience and Encouragements to be Environmentally Responsible

Figure 1: Dimensions of HIH and HIE
Source: Abu Bakar et al., 2017

In general, EB refers to the environmentally conscious and conscientious activities and choices that are made on a daily basis in order to protect the environment. These behavioural acts comprise recycling, reusing waste handling, energy conservation, and responsible purchasing behaviour. EB is associated with a collectivistic culture that prioritises collective efforts in sustainable living. Individuals practising EB have an awareness of their own well-being in relation to the natural environment. EB also promotes the understanding that everyday activities have a significant impact on the ecosystem and other living beings, therefore fostering a sense of environmental responsibility. Embracing EB promotes HIE and fosters deep experiences by establishing a strong link between current actions and future outcomes. This not only enhances individuals' immediate satisfaction but also contributes to long-term and heightened SWB (Abu Bakar et al., 2018; Abu Bakar et al., 2017a; Abu Bakar et al., 2017b) (see Table 1).

Table 1: Definition, Factors, and Indicators of Environmental Behaviours

Definition	Factor	Code	Indicators	
The positive and responsible behaviours throughout everyday decisions and actions in favour of the environment	Energy-Saving	EB1	turning off fans and lights when they are unutilised	
		EB2	turning off taps when brushing teeth	
		EB3	throwing rubbish according to designated recycle bins	
	Waste Handling	EB4	separating rubbish at home (metals, paper, glass, etc.)	
		EB5	reusing grocery bags/ jars/ bottles/ boxes/ cans, etc.	
		EB6	using towels instead of tissues	
	Smart Consumer		EB7	using water tumbler instead of purchasing water
			EB8	purchasing refillable detergents
			EB9	purchasing energy-savings appliance
			EB10	purchasing products that are organically produced

HUMAN NEEDS FULFILLMENT AND WELLBEING

The Hierarchy of Needs [HON] is a hierarchical framework consisting of five levels that delineate the stages of human motivation (Maslow, 1943). It consists of two sets: deficiency needs and growth needs. The four most critical deficiency needs are those related to physiological needs, safety needs, love and belonging needs, and esteem needs, respectively organised in order of urgency. The growth needs were first linked to self-actualisation. In the 1960s and 1970s, the five phases of HON were expanded to a total of eight stages. Maslow (1962) included cognitive needs and aesthetic needs as part of the growth needs set. Subsequently, Maslow (1970) incorporated transcendence needs as the eighth and ultimate level (see Figure 2).

Deficiency needs are the needs for subsistence that arise from scarcity. As time passes, the urge to fulfil deficiency needs often rises if they are unmet. Take hunger as an example; it gets worse when it persists for too long. Psychological fulfilment is at the heart of growth needs, which are provided by intellectual and creative pursuits. By attending to the lower levels of human needs, one can then reach the highest degree of HON, namely the transcendence needs. Although individuals usually ascend the hierarchy in a consistent manner, personal circumstances, such as marital disputes or professional losses, can trigger changes in HON. Individuals are unlikely to go through HON in an upward direction in reality; rather, they will bounce between the varied levels.

According to Maslow (1943), humans must first satisfy the lower-level needs before progressing to the higher level of the hierarchy. For instance, it is necessary to fulfil esteem needs before progressing to cognitive needs, and this principle applies to every level of HON. Later, Maslow (1987) expounded that fulfilling a need is not a definitive or binary process. He recognised that his earlier statements might have conveyed the inaccurate notion that a need must be fully satisfied before progressing to higher ones. Typically, most individuals have progressed towards meeting lower-level needs while the majority of them seem to have partially met these needs. Human needs are characterised by their dynamic and adaptable nature, allowing humans to address several needs simultaneously (Abu Bakar, 2022).

There are two conflicting viewpoints presented in the literature. Initially, it is important to fulfil the human needs to attain SWB. However, over-satisfying some needs might result in dissatisfaction. For example, unhappiness from monetary wealth shows the shallowness of certain needs. Furthermore, individuals who triumph over obstacles like unmet needs can forge a deeper bond to life meaningfulness. Intriguingly, partially fulfilled or unmet needs may increase life meaning. This research found 24 indicators of human needs throughout the eight stages of HON using literature reviews and surveys (see Figure 3).

	HON	UNDERSTANDING
DEFICIENCY NEEDS	1	Physiological Needs The body's need for balance and consistent levels in different bodily systems is called homeostasis. It is driven by survival instincts like seeking shelter, water, food, warmth, rest, and good health. Until this need is met, all other needs are secondary.
	2	Safety and Security Needs The need for safety and security in one's life and surroundings involve seeking protection from violence, health threats, sickness, and economic pressures in order to thrive in modern societies.
	3	Belonging and Love Needs The need for love and a sense of belonging is fulfilled through supportive and communicative friendships, family, and intimate relationships. Deprivation of these needs can lead to feelings of guilt, loneliness, depression, or low extraversion values.
	4	Esteem Needs The need for self-confidence and recognition is fulfilled through positive feelings of self-worth achieved via accomplishments, appreciation, and recognition. Without meeting this need, one may experience feelings of inferiority.
	5	Cognitive Needs The need for knowledge and understanding is fulfilled by yearning for learning, exploration, discovery, and creation to better understand the world. Failure to fulfil this need may result in confusion and identity crisis.
GROWTH NEEDS	6	Aesthetic Needs The need to appreciate and connect with nature's beauty which involves taking time to immerse oneself in natural surroundings, allowing the sights, sounds, and sensations of the environment to refresh and rejuvenate the mind and body.
	7	Self-Actualization The instinctual need to maximize one's abilities and strive to be the best leading to a feeling of generativity –the desire to vote, contribute, volunteer, nurture and guide others to the well-being and growth of future generations or to outlast oneself.
	8	Transcendence Needs The need to surpass self-centeredness, and assist others in self-fulfilment and unlocking potential, also known as spiritual needs – when fulfilled, results in a sense of integrity, elevating one's existence to a higher plane.

Figure 2: Understanding the Stages in the Hierarchy of Human Needs
Source: Abu Bakar et al., 2022

STAGES OF HUMAN NEEDS	HON	#	HUMAN NEEDS INDICATORS
Essential Requirements <i>In the absence of them, the living system of mankind is obstructed.</i>	Physiological Needs	HN01	Nutritional and Wholesome Food
		HN02	Access to Medical Care
		HN03	Clean Water (for Drinking and Washing)
		HN04	Clean and Fresh Air
		HN05	Functional and Well-Maintained Lavatory
	Safety & Security Needs	HN06	Sufficient Electrical Supply
		HN07	Affordable Housing and Conveniences
		HN08	Financial Security and Stability
		HN09	Personal Safety and Security
		HN10	Health Insurance
Supplementary Requisites <i>In the absence of them, the living system is not obstructed but lives would be challenging</i>	Belonging & Love Needs	HN11	Work-Life Balance
		HN12	Social Acceptance and Cultural Inclusivity
		HN13	Reliable Communication Network
		HN14	Access to Internet with Reliable Connectivity
Aspired Prospects <i>In the absence of them, the living system is not obstructed and lives would not be too challenging</i>	Esteem Needs	HN15	Primary Education Attainment
		HN16	Secondary Education Attainment
	Cognitive Needs	HN17	Tertiary Education Attainment
		HN18	Employment Prospects and Opportunities
	Aesthetic Needs	HN19	Well-Kept Areas for Recreational Activities
		HN20	Rich Biodiversity of Flora and Fauna
	Self-Actualization	HN21	Rights to Participate in Leadership Selection
		HN22	Freedom of Expression
		HN23	Opportunities Free from Corruption
		HN24	Artistic and Cultural Freedom

Figure 3: Human Needs Indicators
Source: Abu Bakar et al., 2022

TRANSCENDENCE AND ENVIRONMENTAL BEHAVIOUR

HON provides an objective look at the variables that influence SWB. Individuals could build their SWB by meeting their human needs and also experience human needs differently according to their circumstances. Pursuing HON and SWB is highly personal; there is no standard approach. While some individuals can find SWB via artistic attempts, others may acquire SWB via charitable contributions or relationships with others.

Additionally, Maslow (1970) posited that just over one percent of the worldwide population has reached transcendence, the highest level of HON. Those who experience transcendence often attain a deep sense of contentment and inner tranquillity by improving the well-being of others and dedicating themselves to the betterment of society.

To transcend their distinct identity and challenges, one must have the capacity and desire to establish a relationship with something larger than themselves (Koltko-rivera, 2015). Realising one's worth and contributing to a higher cause are essential components of this state of selflessness. Transcendence may have varied meanings to different individuals; for some, it is the desire to feel at one with the universe, with nature, or with a greater power.

EB pertains to the realisation of transcendence needs whereby it features a shift in focus, from the individual's self-interest towards a higher obligation to the natural environment. Individuals with greater EB commit to causes that are greater than themselves and strive towards a more sustainable and harmonious cooperation between humans and the environment (Abu Bakar et al., 2020a; Abu Bakar et al., 2020b). Those who adopt EB typically exhibit a better sense of purpose in their daily activities. The notion of transcendence, in which individuals pledge to go beyond their interests and desires to bring about positive change in the world, is in line with practising EB.

RESEARCH QUESTIONS

This study investigates the following questions: (1) Does fulfilling human needs improve EB? If so, which human needs? (2) Can EB thrive without human needs? If so, which human needs are not inherently influencing EB?

METHOD

A survey was administered to a sample of 4,315 Malaysian respondents, requiring them to assess their EB on an 11-point Likert scale. The Kolmogorov-Smirnova test results indicated that the data was not normally distributed. This warranted the Mann-Whitney U test to assess the mean difference of EB between convenience and difficulty in meeting 24 human needs.

FINDINGS

The following tables show (i) the mean distribution of EB items, (ii) the Mann-Whitney U test results, and (iii) the Mann-Whitney U test results interpretation.

Table 2: Mean Distribution of EB Items

Indicators	Code	\bar{x}	$\bar{x}EB$
I turn off fans and lights if I see them switched on.	EB1	8.54	
I turn off taps whenever I brush my teeth.	EB2	8.24	
I throw rubbish according to designated recycling bins.	EB3	7.76	
I separate rubbish at home (metals, paper, glass, etc.).	EB4	7.32	
I reuse grocery bags/jars/bottles/boxes/cans, etc.	EB5	7.67	7.84
I use towels instead of tissues.	EB6	7.69	
I use water tumbler instead of purchasing water.	EB7	7.94	
I purchase refillable detergents.	EB8	7.97	
I purchase energy-saving appliances.	EB9	7.76	
I purchase products that are organically produced.	EB10	7.55	

Note. Mean Distribution of EB Items (\bar{x}) and Overall Mean of EB ($\bar{x}EB$)

Table 3: Mann-Whitney U Test Results

HON STAGES	HUMAN NEEDS	Difficult			Convenient			U	z	p
		N	$\bar{x}R$	\bar{x}	N	$\bar{x}R$	\bar{x}			
Physiological Needs	HN01	336	2163.81	8.0	3979	2157.51	8.0	666519.0	-.089	.929
	HN02	423	2084.66	7.9	3892	2165.97	8.0	792134.5	-1.275	.202
	HN03	392	2238.31	8.1	3923	2149.97	8.0	737425.5	-1.339	.181
	HN04	1330	1953.90	7.7	2985	2248.94	8.1	1713573.5	-7.185	.000
	HN05	805	2009.59	7.8	3517	2192.04	8.0	1293308.5	-3.748	.000
Safety & Security Needs	HN06	428	2116.51	7.9	3887	2162.57	8.0	814060.5	-.726	.468
	HN07	1114	2174.45	8.0	3201	2152.28	8.0	1764635.0	-.512	.609
	HN08	1861	2086.15	7.9	2454	2212.48	8.0	2149741.5	-3.300	.001
	HN09	1578	2010.98	7.8	2737	2242.77	8.1	1927488.0	-5.888	.000
	HN10	1325	1986.60	7.7	2990	2233.95	8.1	1753772.0	-6.018	.000
Belonging & Love Needs	HN11	1582	1987.20	7.7	2733	2256.87	8.1	1891602.0	-6.853	.000
	HN12	1310	2025.62	7.8	3005	2215.71	8.0	1794854.0	-4.610	.000
	HN13	328	2107.51	8.0	3987	2162.15	8.0	637308.0	-.764	.445
Esteem Needs	HN14	932	2206.34	8.1	3392	2144.85	7.9	1520794.0	-1.330	.184
	HN15	313	2225.16	8.1	4002	2152.75	8.0	605291.0	-.991	.322
Cognitive Needs	HN16	390	2160.43	8.0	3925	2157.76	8.0	764428.0	-.040	.968
	HN17	836	2088.09	7.8	3479	2174.80	8.0	1395781.0	-1.807	.071
Aesthetic Needs	HN18	1678	2104.78	7.9	2637	2191.86	8.0	2123144.0	-2.239	.025
	HN19	1430	1989.90	7.7	2885	2241.32	8.1	1822394.5	-6.242	.000
	HN20	1453	1985.57	7.7	2862	2245.54	8.1	1828700.0	-6.480	.000
Self-Actualisation	HN21	1823	2043.27	7.8	2492	2241.93	8.1	2062312.0	-5.175	.000
	HN22	1957	2071.89	7.8	2358	2229.47	8.1	2138780.5	-4.137	.000
	HN23	2247	2126.75	7.9	2068	2191.95	8.0	2253186.5	-1.718	.086
	HN24	1531	1960.71	7.7	2784	2266.49	8.2	1829107.5	-7.716	.000

Note. Mean Rank of $\bar{x}\Sigma$ EB across Difficult and Convenient; **Bold** shows higher mean rank.

The data in Table 3 indicated that EB was statistically higher in meeting all the highlighted human needs. The results showed that 13 out of the 24 test outcomes were statistically significant.

Table 4: Mann-Whitney U Test Results Interpretation

HON	HUMAN NEEDS	INTERPRETATION
Physiological Needs	Nutritional and Wholesome Food	Those who claimed difficult had greater mean rank (N = 336, $\bar{x}R = 2163.81$) than those who claimed convenient (N = 3979, $\bar{x}R = 2157.51$), but the difference was not statistically significant (U = 666519.0, p = .929).
	Access to Medical Care	Those who claimed convenient had greater mean rank (N = 3892, $\bar{x}R = 2165.97$) than those who claimed difficult (N = 423, $\bar{x}R = 2084.66$), but the difference was not statistically significant (U = 792134.5, p = .202).
	Clean Water (For Drinking and Washing)	Those who claimed difficult had greater mean rank (N = 392, $\bar{x}R = 2238.31$) than those who claimed convenient (N = 3923, $\bar{x}R = 2149.97$), but the difference was not statistically significant (U = 737425.5, p = .181).
	Clean and Fresh Air	Those who claimed convenient had greater mean rank (N = 2985, $\bar{x}R = 2248.94$) than those who claimed difficult (N = 1330, $\bar{x}R = 1953.90$). A statistically significant difference was found (U = 1713573.5, p = .000).
	Functional and Well-Maintained Lavatory	Those who claimed convenient had greater mean rank (N = 3517, $\bar{x}R = 2192.04$) than those who claimed difficult (N = 805, $\bar{x}R = 2009.59$). A statistically significant difference was found (U = 1293308.5, p = .000).
Safety and Security Needs	Sufficient Electrical Supply	Those who claimed convenient had greater mean rank (N = 3887, $\bar{x}R = 2162.57$) than those who claimed difficult (N = 428, $\bar{x}R = 2116.51$), but the difference was not statistically significant (U = 814060.5, p = .468).
	Affordable Housing and Conveniences	Those who claimed difficult had greater mean rank (N = 1114, $\bar{x}R = 2174.45$) than those who claimed convenient (N = 3201, $\bar{x}R = 2152.28$), but the difference was not statistically significant (U = 1764635.0, p = .609).
	Financial Security and Stability	Those who claimed convenient had greater mean rank (N = 2454, $\bar{x}R = 2212.48$) than those who claimed difficult (N = 1861, $\bar{x}R = 2086.15$). A statistically significant difference was found (U = 2149741.5, p = .001).
	Personal Safety and Security	Those who claimed convenient had greater mean rank (N = 2737, $\bar{x}R = 2242.77$) than those who claimed difficult (N = 1578, $\bar{x}R = 2010.98$). A statistically significant difference was found (U = 1927488.0, p = .000).
	Health Insurance	Those who claimed convenient had greater mean rank (N = 2990, $\bar{x}R = 2233.95$) than those who claimed difficult (N = 1325, $\bar{x}R = 1986.60$). A statistically significant difference was found (U = 1753772.0, p = .000).
Belonging and Love Needs	Work-Family Balance	Those who claimed convenient had greater mean rank (N = 2733, $\bar{x}R = 2256.87$) than those who claimed difficult (N = 1582, $\bar{x}R = 1987.20$). A statistically significant difference was found (U = 1891602.0, p = .000).
	Social Acceptance and Cultural Inclusivity	Those who claimed convenient had greater mean rank (N = 3005, $\bar{x}R = 2215.71$) than those who claimed difficult (N = 1310, $\bar{x}R = 2025.62$). A statistically significant difference was found (U = 1794854.0, p = .000).
	Reliable Communication Network	Those who claimed convenient had greater mean rank (N = 3987, $\bar{x}R = 2162.15$) than those who claimed difficult (N = 328, $\bar{x}R = 2107.51$), but the difference was not statistically significant (U = 637308.0, p = .445).
	Access to Internet with Reliable Connectivity	Those who claimed difficult had greater mean rank (N = 932, $\bar{x}R = 2206.34$) than those who claimed convenient (N = 3392, $\bar{x}R = 2144.85$), but the difference was not statistically significant (U = 1520794.0, p = .184).
Esteem Needs	Primary Education Attainment	Those who claimed difficult had greater mean rank (N = 313, $\bar{x}R = 2225.16$) than those who claimed convenient (N = 4002, $\bar{x}R = 2152.75$), but the difference was not statistically significant (U = 605291.0, p = .322).
	Secondary Education Attainment	Those who claimed difficult had greater mean rank (N = 390, $\bar{x}R = 2160.43$) than those who claimed convenient (N = 3925, $\bar{x}R = 2157.76$), but the difference was not statistically significant (U = 764428.0, p = .968).
Cognitive Needs	Tertiary Education Attainment	Those who claimed convenient had greater mean rank (N = 3479, $\bar{x}R = 2174.80$) than those who claimed difficult (N = 836, $\bar{x}R = 2088.09$), but the difference was not statistically significant (U = 1395781.0, p = .071).
	Employment Prospects and Opportunities	Those who claimed convenient had greater mean rank (N = 2637, $\bar{x}R = 2191.86$) than those who claimed difficult (N = 1678, $\bar{x}R = 2104.78$). A statistically significant difference was found (U = 2123144.0, p = .025).

Note. Result Interpretation of Mann Whitney U Test; Bold & Highlighted shows statistically significant output.

Table 4: Mann-Whitney U Test Results Interpretation (continued)

HON	HUMAN NEEDS	INTERPRETATION
Aesthetic Needs	Well-Kept Areas for Recreational Activities	Those who claimed convenient had greater mean rank (N = 2885, $\bar{x}R = 2241.32$) than those who claimed difficult (N = 1430, $\bar{x}R = 1989.90$). A statistically significant difference was found (U = 1822394.5, p = .000).
	Rich Biodiversity of Flora and Fauna	Those who claimed convenient had greater mean rank (N = 2862, $\bar{x}R = 2245.54$) than those who claimed difficult (N = 1453, $\bar{x}R = 1985.57$). A statistically significant difference was found (U = 1828700.0, p = .000).
Self-Actualisation Needs	Rights to Participate in Leadership Selection	Those who claimed convenient had greater mean rank (N = 2492, $\bar{x}R = 2241.93$) than those who claimed difficult (N = 1823, $\bar{x}R = 2043.27$). A statistically significant difference was found (U = 2062312.0, p = .000).
	Freedom of Expression	Those who claimed convenient had greater mean rank (N = 2358, $\bar{x}R = 2229.47$) than those who claimed difficult (N = 1957, $\bar{x}R = 2071.89$). A statistically significant difference was found (U = 2138780.5, p = .000).
	Opportunities Free from Corruption	Those who claimed convenient had greater mean rank (N = 2068, $\bar{x}R = 2191.95$) than those who claimed difficult (N = 2247, $\bar{x}R = 2126.75$), but the difference was not statistically significant (U = 2253186.5, p = .086).
	Artistic and Cultural Freedom	Those who claimed convenient had greater mean rank (N = 2784, $\bar{x}R = 2266.49$) than those who claimed difficult (N = 1531, $\bar{x}R = 1960.71$). A statistically significant difference was found (U = 1829107.5, p = .000).

Note. Result Interpretation of Mann Whitney U Test; Bold & Highlighted shows statistically significant output.

Table 5: Summary of Findings

Statistically Significant Difference Established (p < .000)		Difference Did Not Reach Significance
Condition 1:	Condition 2:	Condition 3:
EB Increases with Difficulty	EB Increases with Convenient	Neither Change EB
The difficulty to meet human needs increases EB, or EB is greater with the difficulty to meet human needs.	The convenience to meet human needs increases EB, or EB is greater with convenience to meet human needs.	Neither convenience nor difficulty to meet human needs increases EB, or EB does not change with convenience or difficulty to meet human needs.

	HON	Code	Human Needs	Findings/Condition
DEFICIENCY NEEDS	Biological & Physiological Needs	HN01	Nutritional and Wholesome Food	Condition 3
		HN02	Access to Medical Care	Condition 3
		HN03	Clean Water (For Drinking and Washing)	Condition 3
		HN04	Clean and Fresh Air	Condition 2
		HN05	Functional and Well-Maintained Lavatory	Condition 2
	Safety & Security Needs	HN06	Sufficient Electrical Supply	Condition 3
		HN07	Affordable Housing and Conveniences	Condition 3
		HN08	Financial Security and Stability	Condition 2
		HN09	Personal Safety and Security	Condition 2
		HN10	Health Insurance	Condition 2
	Belonging and Love Needs	HN11	Work-Life Balance	Condition 2
		HN12	Social Acceptance and Cultural Inclusivity	Condition 2
		HN13	Reliable Communication Network	Condition 3
		HN14	Access to Internet with Reliable Connectivity	Condition 3
	Esteem Needs	HN15	Primary Education Attainment	Condition 3
		HN16	Secondary Education Attainment	Condition 3
GROWTH NEEDS	Cognitive Needs	HN17	Tertiary Education Attainment	Condition 3
		HN18	Employment Prospects and Opportunities	Condition 2
	Aesthetic Needs	HN19	Well-Kept Areas for Recreational Activities	Condition 2
		HN20	Rich Biodiversity of Flora and Fauna	Condition 2
	Self-Actualisation	HN21	Rights to Participate in Leadership Selection	Condition 2
		HN22	Freedom of Expression	Condition 2
		HN23	Opportunities Free from Corruption	Condition 3
		HN24	Artistic and Cultural Freedom	Condition 2

Table 2 shows that the majority of Malaysian respondents had a positive sentiment towards EB, with mean scores ranging from 7.32 to 8.54. They were asked regarding the convenience or difficulty of satisfying human needs. More than half of the respondents stated that it was convenient to fulfil all 24 human needs (see Table 3). The average means of the EB items were used to perform the Mann-Whitney-U tests, which analysed the variation of means between the two points (convenience and difficulty).

The findings indicate that EB increases when more than half of human needs are convenient to meet. It suggests that the convenience of meeting these human needs will heighten overall environmental behaviour. However, EB did not significantly rise across the difficulty nor convenience of fulfilment for certain human needs, namely (i) nutritional and wholesome food, (ii) access to medical care, (iii) clean water, (iv) sufficient electrical supply, (v) affordable housing and conveniences, (vi) reliable communication network, (vii) access to internet with reliable connectivity, and (viii) primary, secondary, and tertiary school accomplishments.

DISCUSSION AND CONCLUSION

The results of this study highlight crucial aspects that greatly improve environmental behaviour. Clean air and well-maintained lavatories have a positive influence on health and hygiene, thus promoting environmentally friendly habits. Financial stability allows for eco-friendly choices, while personal safety and health insurance promote resistance to environmental dangers. Work-life balance encourages participation in environmental activities, while social acceptability and inclusive societies promote collective action. Furthermore, employment possibilities stimulate sustainable innovation, whilst biodiverse habitats and recreational spaces foster environmental appreciation. The right to engage in government and cultural liberties also strengthens lobbying for green measures. These factors demonstrate how human well-being and environmental stewardship are inextricably linked, resulting in a complete approach to sustainable living.

On the contrary, environmental behaviour is not dependent on meeting all human needs, such as nutritious and healthy food, access to medical care, and inexpensive housing and comforts. While these criteria are essential for existence and stability, people may still be environmentally conscious and participate in sustainable actions regardless of their monetary circumstances. Higher-level demands, such as tertiary education, may boost environmental consciousness by raising awareness and enabling educated judgements. However, environmental consciousness is mostly driven by personal beliefs, upbringing, cultural norms, and knowledge of global environmental concerns. As a result, people with varied backgrounds and degrees of need fulfilment may actively engage in and support environmental stewardship and sustainability initiatives.

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