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Determinants of Self-Actualization Among Gen Z: The Mediating Role of Digital Literacy

Muhammad Faizan Khan [1], Ramzi Talmoudi [2*], Usamah Iyyaz Billah [3] and Huda Raza Khan [3]

[1] Department of Management Sciences, College of Business, Kohsar University, Murree 47150, Pakistan.
[2] Business Administration Department, Imam Mohammad Ibn Saud Islamic University (IMSIU), Riyadh 13318, Saudi Arabia.
[3] Department of Business Studies, Kinnaird College for Women, Lahore 54000, Pakistan.

* **Corresponding Author:** rtalmoudi@imamu.edu.sa.

ABSTRACT: Self-actualization, which Maslow [1] described as the highest of human desires, is still a powerful but dynamic concept in the digital age. This study aims to ascertain whether digital literacy aids in the growth of self-actualization in Generation Z and the ways in which self-actualization is influenced by three personal capacities: career aspirations, moral metacognition, and cognitive flexibility. To the best of the researcher's knowledge, this subject of study is currently under studied in the available literature. The study entailed data collection from 620 Gen Z participants who were digitally literate and frequent users of the internet and other related technology. We used Smart PLS 4.0's Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the intricate correlations between these variables. The findings prove positive relation between the variables and imply that self-actualization is not solely predicted by professional goals; digital literacy acts as a mediator. These results point to the critical role that digital skills play in determining Gen Z's life goals and personal development. They also pave the way for further study of new literacies, like AI literacy, as well as workplace elements like motivation and job satisfaction.

Keywords: gen Z, cognitive flexibility, moral metacognition, career aspirations, digital literacy, self-actualization.

I. INTRODUCTION

Since the younger generation was raised in the internet age and learns from a variety of online resources in addition to their peers and surroundings, their needs are always changing in these dynamic times [1, 2]. The youth, particularly Generation Z (Gen Z) have different outlook and preferences towards life as compared to their elders [3]. The Gen Z follows the millennials [4] though the specific years defining generations can be unclear as their zeitgeists are difficult to distinguish [5]. However, based on vast studies it's safe to believe that for a number of reasons including key economic, social factors defining millennials formative years 1996 marks a significant cutoff between the Gen Z and millennials [6] classifying Gen Z as born between 1997- 2012 [7]. Presently this cohort is transitioning into the workforce [8]. As the new composition of employees enters the workforce, they bring new values and expectations which can contest established norms [8]. Consistent exposure to digital media has played a pivotal role in developing unique characteristics and behaviors in the contemporary generation [9]. The notion of self-actualization was introduced by Abraham Maslow which focuses on the realization of one's own (individual's) capacity and capabilities [10]. In the present time attaining this state requires adapting to the digital sphere which greatly influences the personal growth and career aspirations [11], while navigating the complex cognitive and moral landscapes [12]. As the new epoch, youth revolve around self-expression and identity formation ubiquitously by the digital age.

The moral metacognition: the ability to ponder and evaluate one's ethical convictions and choices [13], plays a critical role in how the young minds explore their personal and professional realities [14]. Furthermore, when combined with cognitive flexibility, the ability of an individual to modify their neural processing processes in order to deal with unforeseen situations [15] greatly aids in the quest for self-actualization. Since Gen Z was born in an era of technology and the internet, they are used to multitasking and have access to a variety of information sources, which makes them more adaptable than previous generations. However, given the current environment, where traditional values often clash with contemporary stimuli, understanding Gen Z's job goals is essential to maximizing their potential [16]. Additionally, exposure to many cultures and points of view enhances cognitive flexibility in this age of global media. Furthermore, Gen Z is especially involved in social justice issues, speaking out against injustice, promoting social justice, and maintaining their moral values. Rapid growth, flexibility and adaptability, work-life balance, and moral responsibility are often valued highly by Gen Z [17]. Being proficient with technology becomes crucial to achieving these objectives in a time when digital literacy is required rather than optional.

Self-actualization is the apex of psychological development and the moment at which people realize their full potential, according to Maslow's hierarchy. In these extremely dynamic and digitalized corporate environments, it has become a crucial component of both professional and personal development, particularly for Gen Z, who are entering the workforce with evolving skill sets and expectations. However, the current body of research is inadequate in describing the elements that either facilitate or hinder Gen Z's path to self-actualization, especially in the workplace. As in the current context where the academic and occupational frameworks are often coerced by the conventional norms, a mounting pressure is emerging to fathom the determinants influencing self-actualization. However, the pathways to understanding the metrices influencing it are undoubtedly complex. The significant gap in the literature and experiential setting in the current commercial structure unlocks a new room of advancement to study the constructs which link the psychological and cognitive characteristics to help the Gen Z attain their maximum potential and offering competitive advantage to the organization. Research objectives are summarized as follows:

- To examine the determinants of self-actualization in Gen Z.
- To explore the relationship between cognitive flexibility, moral meta cognition, career aspiration and self-actualization of Gen Z.
- To assess the mediating role of digital literacy in the relationship between moral metacognition, cognitive flexibility, career aspirations and self-actualization.

II. LITERATURE REVIEW

This module explores the study elements which are cognitive flexibility, moral meta cognition and career aspirations serving the role of independent variables while digital literacy is positioned as the mediator between their relationship with self-actualization.

1. COGNITIVE FLEXIBILITY

Cognitive flexibility (CF) is an individual's brain ability to adapt to novel, evolving or unforeseen circumstances [18]. It also implies a readiness to move between mental models [19] to rebuild and adapt as necessary [20]. This mental capacity enables people to multitask or manage the various roles they play by facilitating a smooth transition between a variety of ideas and ways of thinking [21, 22]. This enables them to respond to challenging or unforeseen situations by acting or changing their behavior. Beyond just changing plans, cognitive flexibility is demonstrated by stretching one's imagination to picture oneself and others in their environment.

Offering an alternative viewpoint, maintaining receptivity to fresh concepts, and promoting creativity [24] and problem solving [23]. In order to navigate complex information environments and adjust to constantly changing tools and paradigms, the growing adult population navigating the technological era need increased cognitive flexibility [25]. CF is recognized as a key enabler of digital literacy, particularly when dynamic networking and information processing are required. Beyond fundamental technical skills,

increasing digital proficiency includes critical thinking, adaptive learning, and information evaluation. As a result, CF is necessary to function in the complex digital world. It's similar to pausing, stepping back from one's thoughts for a time, refocusing, and calming nervous thoughts. Given that people in today's fast-paced environment frequently experience unanticipated occurrences that can disrupt their cognitive functioning and cause them anxiety, cognitive flexibility in action enables them to quickly adjust to such circumstances. CF develops gradually and calls for training, experience, and practice.

A major factor in the development and improvement of this cognitive adaptability is broadening one's awareness by comprehending and learning about the viewpoints, arguments, actions, and approaches to problem-solving of others [18]. In the fast-paced world of today, particularly in the commercial world, CF is an essential talent [21] since situations are constantly changing, making it critical to quickly identify when a plan isn't working and adjust it [26]. Greater mental clarity that fosters self-awareness and personal development is a result of greater cognitive flexibility. According to the material now in publication, Gen Z is more purpose-driven and seeks fulfillment and significance in nearly every area of their lives.

The synthesis of cognitive flexibility and digital literacy is rich, enabling the individuals of the generation to learn, innovate and navigate through the complex digital landscapes of present time. As wide access and curiosity to explore around these platforms can potentially enhance their desire to learn new things and unleash their creativity, boosting the cognitive functioning [27]. Learning means acquiring knowledge but how is someone going to utilize the knowledge in practical life if an individual cannot process and adapt to new information in time. The corporate settings are competitive and rough, every organization deems to acquire and retain an individual who is proactive, is willing to learn and adapt [28]. Technological advancement has not only evolved the generational values and beliefs it has also transformed the business landscapes. Gen Z is the new workforce breed as this generation is either preparing to enter or has already entered the employment phase. Professional life is filled with obstacles an individual is required to pass through by themselves as it's a part of adulthood where they are required to be responsible for themselves. They need to equip them with an advanced skill set which is required in the market to prosper in their professional and personal prospects. Technology rich environments stimulate CF by making individuals adjust to new tools and platforms, while these environments require a certain level of digital literacy to make work making DL a prerequisite and enhancer of CF [25]. Proposing a hypothesis accordingly:

- H1: Cognitive flexibility and digital literacy have a significant and positive relation.

2. MORAL METACOGNITION

To comprehend moral metacognition, it's essential to know metacognition independently first. In simple words metacognition, at its core, is thinking about thinking, to know one's own cognitive processes. It is about typology of processes which fosters one to form beliefs about other mental functions and embodies self-reflection, cognitive assessment and self-evaluation of learning [29]. Moral metacognition displays the understanding of one's own morals and the competence to engage in introspection, during moral choice architecture [13]. It is also the need to track the information used in decision-making scenarios to analyze how to act or identify the correct behavior [30]. It's a personal perception of nature, principles, and the strategies of morality [13]. The focus of moral metacognition is to reflect on how one makes one's moral judgements, ethical evaluations or decisions. As digital natives, Gen Z possesses the unique capacity to critically evaluate online content and identify authentic, trustworthy sources which is considered a key aspect of digital literacy. This skill directly influences the moral metacognition of individuals, enabling them to form thoughtful opinions, reflect deeply, and make ethical decisions in the present complex digital realm [31]. The moral metacognition in return shapes their sense of digital citizenship, encouraging responsible online behavior, respect for other's rights, and a heightened awareness of the ethical impact resulting from their actions. Gen Z exhibits a tendency to demand authenticity, fairness and alignment with intrinsic belief [32]. Hence when these young adults enter an organization and transition into the workforce, they are sensitive to these elements. [33] highlights that they (Gen Z) hold the expectation that organization ensure clarity and accountability, this participatory expectation encapsulates not only social sensitivity but proactive ethical positioning in tiered systems. It will develop into a Gen Z personality trait. As technology advances and organizations undergo a transition to atomization, this competency holds potential benefits for them. As

a result, when a morally pure person joins the company, they will act morally, which will ease the transition and lower the amount of digital fraud and cyber-related misbehavior [34]. According to [35], Gen Z, the digital citizens, are developing and demanding (having a ravenous desire for modern-digital) tools and procedures that aid in their learning process, therefore the traditional ways are not working for them. This conventional knowledge construction extends beyond tech programs to include moral development and personal efficacy.

The generation is now often exposed to false information, data privacy concerns, algorithm bias, and cyberbullying due to the widespread use of digital technologies [36]. Unlike previous generations, Gen Zs' identity development and socialization are deeply entwined with digital media; hence, it is essential to cultivate digital behaviors that are introspective and morally conscientious [34]. Moral metacognition, which is primarily online in the case of Generation Z, allows one to start a time of reflection and assess their own ideals and behavior. Gen Z is better prepared to handle the intricacies of the online world when moral metacognition and digital literacy are fostered together.

- H2: Moral metacognition and digital literacy have a significant and positive relation.

3. CAREER ASPIRATIONS

Career is an individual's trajectory through life or within a temporal life phase categorized by their involvement in a specific profession or undertaking. It's the evolving sequence of an entity's vocational exposure acquired over time [37]. It reflects the current professional positioning of an individual. Within this dynamic and adaptive course [38] lies a deeper construct which provides a vision, direction and purpose to move forward namely career aspirations. The career aspirations designate the pursuit of developmental milestones, stemming from one's passion and ambitions [39]. It instills motivation to strive, to reposition oneself in their occupation. These goals make up one's personal identity and influence one's self-worth, level of engagement, and regulatory systems [40]. People who have career goals tend to select careers that fit their values, passions, and skills, which leads to higher levels of job satisfaction [39]. As was previously mentioned, Gen Z has a distinct set of values that are reflected in their desired careers. According to [39], they actively look for occupations and institutions that share their ideals and have a beneficial influence on society. Another important motivator is ongoing education, which is excited about the possibility of learning new skills like cross-functional training, mentoring, and work rotation. They value flexibility and work-life balance highly, and they prefer remote work arrangements that promote their own wellbeing. Compared to earlier generations, they place a higher priority on possibilities for job advancement, transparency, systematic feedback, and unambiguous career progression. A distinct profile of value, competences, qualities, expectations, and aspirations is brought to the job market by the digital natives [41]. Gen Zs describe supportive, courteous, and sympathetic leadership styles when they describe their goals for the role [41]. seeing leadership as more than just a status symbol, but as a means of expressing and living out their basic beliefs [41]. They want to follow a career path that gives them a sense of personal fulfillment and self-expression [40]. Developing successful tactics for meaningful engagement and long-term partnerships requires an understanding of these generational distinctions. [42]

- H3: Career aspiration and digital literacy have a significant and positive relation.

4. DIGITAL LITERACY

The ability to access, comprehend, interpret, communicate, assess, and produce information in a safe and responsible way using digital technology is known as digital literacy [43]. In order to effectively engage and navigate the complex digital spaces, a variety of technical proficiencies, cognitive skills, and socio-emotional intelligence are necessary. Beyond simply being able to use devices or software, digital literacy includes understanding how digital platforms influence communication, being able to distinguish between reliable and false information, and using digital tools in a variety of contexts, including academic, professional, and personal life [44]. These days, technology has become a necessary and unavoidable aspect of our life. Gen Z didn't learn technology; they lived it. As a result, they have witnessed and reflected the evolution of the digital world. Because Gen Z engages with the internet intuitively due to its accessible accessibility, they frequently lack a critical awareness of the fundamental infrastructure, morals, or potential threats, therefore

digital knowledge is not an incongruent idea for them [45]. Young individuals must come to this understanding in order to maximize their digital skill set prior to joining the workforce and function at their highest level. One generation that has seen the widespread influence of digital infrastructure on their formative years is Gen Z [46]. Therefore, digital knowledge has a significant impact on psychological and social well-being for the generation that was born into this era of quickly evolving technology and information overload. They are so accustomed to these digital spaces that it has become a crucial part of their identities and aspirations. By exposing students to a variety of ethical perspectives and encouraging critical thinking, Gen Z's preference for technology-assisted learning not only improves cognitive development but also reinforces moral metacognition. Unquestionably, it plays a significant role in Gen Z resilience and wellbeing, especially in personal growth and assistance in fostering self-acceptance [43]. Because digital literacy necessitates networking and the processing of dynamic data, it supports the idea of adaptative reasoning [46]. A person can more easily reflect, assess, solve problems, and adjust to new situations thanks to the wide range of digital knowledge and tools available [47].

Therefore digital literacy mediating the relation between cognitive flexibility and self-actualizatio can help Gen Z to pursue their interest and passion, development of new skills and talents, promoting continous learning, personal and professional growth and to achieve a sense of fulfillment and purpose. Which provides the gorund for hypothesis;

- H5: Digital literacy mediates the relationship between cognitive flexibility and self-actualization

As advocated earlier in the study, individuals with grater moral metacognition can employ digital literacy to critically evaluate online information, sources, make digital moral and informed decisions and engage in ethical online interactions. This understanding of ethical digital culture enables Gen Z to express themselves and their point of views freely but morally right, cultivating a positive online presence.

- H6: Digital literacy mediates the relationship between moral metacognition and self-actualization

Since digital competency is now a crucial component of professions, people must align their career goals to improve productivity, employability, and career advancement. Without reservation, digital literacy helps people to successfully pursue their professional objectives, which eventually enhances their chances of self-actualization. In light of this, the following theory is put forth:

- H7: Digital literacy mediates the relationship between career aspirations and self-actualization

5. SELF-ACTUALIZATION

Maslow defined self-actualization as reaching one's maximum potential and competencies [10]. Maslow's theory of the hierarchy of needs places the pursuit of personal growth, fulfillment, and life purpose at the top [48]. It is not about perfection and does not mean that there are no challenges, even if they are managed [49]. For Generation Z, achieving self-actualization is entwined with moral obligations, digital influences, and societal expectations. Their identity is shaped by their extensive participation in international digital activities [50]. The values and behaviors of Generation Z differ from those of previous generations. Their actions and preferences show a strong pursuit of personal fulfillment, purpose, and societal influence early in their personal and professional lives, thus for them, self-actualization is not just the final stage of need after meeting the necessities. Unlike previous generations, who frequently saw self-actualization as the result of lifetime achievement, this generation is always looking for meaning, purpose, and authenticity. Instead than seeing self-actualization as a far-off ideal, Gen Z is keen to seek it in everyday decisions and sees it through the prism of current necessity. Gen Z's self-actualization is greatly influenced by digital literacy since they actively redefine their social and collective identities in both real and virtual spaces by consuming and applying global content across a variety of digital platforms [50].

- H4: There is a significant and positive relation between digital literacy and self-actualization

Higher the cognitive flexibility enables the individual to integrate diverse perspectives and make thoughtful decisions which resonates with their personal values and aspirations.

- H8: There is significant and positive relation between cognitive flexibility and self-actualization

Gen Z aspirations are reflection of multidimensional set of values encompassing emotional well-being, academic achievement and professional fulfillment [50] instead of oppositional or hierarchical like past generations. Growing up in intense digital saturated time which can correspond to increase level of stress, if

supported properly they are psychologically equipped to thrive and unleash their true potential in their careers [51].

- H10: There is significant and positive relation between career aspirations and self-actualization

Individuals from Gen Z tends to have a strong sense of moral responsibility towards global movements illustrating strong moral grounding [50], desire for meaningful contribution, digital literacy, moral justice, global events influence personal and professional aspirations of Gen Z [51]. It extends beyond merely the attainment of professional success or monetary gains its more holistic synthesis of personal development, autonomy, creativity and sense of person.

- H9: There is significant and positive relation between moral metacognition and self-actualization

6. UNDERPINNING THEORY

This study is grounded in Maslow's Hierarchy of Needs [1], which organizes human needs into pyramid-like, five categories with basic needs places at bottom and higher-level needs at top. This study's particular focus on its highest tier — self-actualization. Maslow's framework provides a meaningful lens through which to explore what drives individuals, especially in today's rapidly evolving world, to realize their fullest potential. Within this context, cognitive flexibility and moral metacognition are positioned as advanced cognitive processes that play a vital role in guiding individuals toward personal growth and self-fulfillment. In parallel, digital literacy emerges as both a practical and empowering factor. It not only helps individuals meet foundational needs such as safety, connection, and belonging (through access to online communities and secure digital environments) but also supports higher-level aspirations by enabling access to knowledge, skill-building, and career advancement via digital platforms. Additionally, the study draws on principles from Social Cognitive Theory (SCT). SCT highlights how self-efficacy, personal goals, and environmental factors interact to shape human behavior [52]. In this framework, cognitive flexibility and moral metacognition are seen as contributors to one's sense of capability, which can influence both career ambitions and the pursuit of self-actualization. Digital literacy plays a mediating role here, enhancing individuals' confidence in navigating digital tools, which in turn can support their growth journeys both professionally and personally.

7. THEORETICAL FRAMEWORK

The literature review and hypotheses formulation lays foundation for the following theoretical framework:

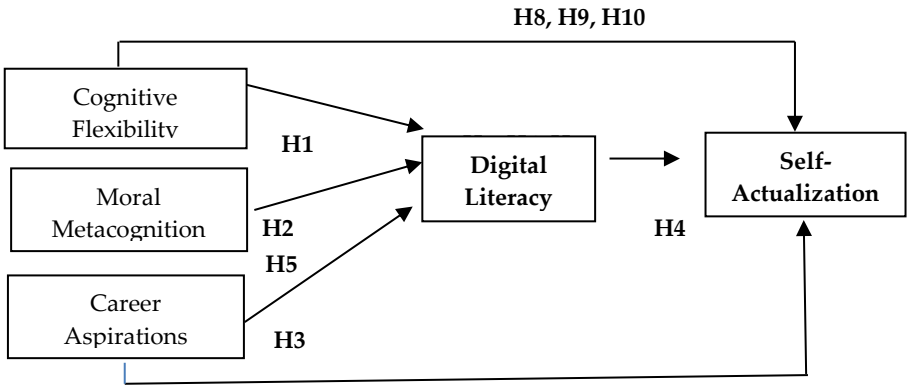

FIGURE 1. Theoretical model.

III. RESEARCH METHODOLOGY

The core aim of this quantitative study is to investigate the influence of cognitive flexibility, moral meta cognition and career aspirations over self-actualization with the mediating role of digital literacy. A

structured survey questionnaire was used to gather data for this study to ensure reliable and valid findings. Cross-sectional research design was deployed facilitating data collection at a particular point in time. This one phase study targeted individuals categorized as Gen Z. In order to maintain objectivity and mitigate potential bias, the researcher maintained a marginal role in data collection, which allowed research participants to accomplish the questionnaire independently. This study observes quantitative approach relying solely on primary data which was collected directly from respondents to deduce conclusion. The primary unit of analysis in this research are individuals, from target population Gen Z; the individuals born between the year 1997 to 2012. To minimize common method bias, the study avoided imposing temporal constraints and incorporated data from multiple sources. Additionally, all key variables were measured simultaneously to reduce the likelihood of measurement errors. The target respondents for this research were professionals working in the corporate sector. Item response theory by Nunnally [53] was applied to determine the sample size. As the theory suggests, ten (10) respondents against the sum of items present in the questionnaire. Thus, the total number of items in this study are 62, (62*10), 620 is the sample size. 620 is a suitable sample to conduct this research. The sampling method was non-probability convenience sampling and a specific inclusion criteria was fixed for Gen Z participants only. Prior pilot testing indicated this sampling mechanism to be effective for study purposes and suitable for reaching the target population. The structured questionnaire was adopted with items concerning variable under study. The selected items came from existing literature on the subject. All the measurement items were adapted from prior validated scale in literature however, minor wording modification were made to ensure the original meaning, clarity and contextual relevance for Gen Z; respondents, of each construct. The data was collected online using Google forms. The questionnaire was mainly classified into two major parts: the first part consisting of demographic data followed by the second part divided into five sub-parts of the study variables. The study variables were measured using the 5 and 6 point Likert scale.

Table 1. Variables, number of items and references.

Variables	No of Items	Sample	References
Cognitive Flexibility	12	"I can communicate an idea in many different ways."	[54]
Moral Metacognition	20	"I ask myself what is important before engaging in the ethical decision-making process."	[55]
Career Aspiration	10	"I hope to become a leader in my career field"	[56]
Digital Literacy	10	"I know how to solve my own technical problems."	[57]
Self-Actualization	10	"I have a good idea of what I want to do with my life"	[58]

The research followed all institutional ethical protocols. Participants were fully informed about the nature and purpose of the study before agreeing to take part, and their voluntary participation was emphasized, including the option to withdraw at any point without facing any negative consequences.

1. STATISTICAL TOOLS

SPSS and Smart-PLS 4 are the statistical tools used in this study. For statistical tasks like data cleaning and descriptive statistics summarization, the flexible SPSS software was utilized. Additionally, Smart-PLS is designed for more complex modeling, specifically Partial Least Squares Structural Equation Modeling (PLS-SEM), which is ideal for examining research data involving complex interactions between latent constructs. PLS SEM was used in this study because the primary objective of the study is prediction and not theory conformation. It is well equipped to model indirect effects and complex inter variable relationships [53]. Thus, offering greater flexibility suitability for this research model. The study examines constructs like

cognitive flexibility, moral metacognition, career aspirations, digital literacy and self-actualization direct, indirect relation and mediation analysis.

IV. DATA ANALYSIS

1. DEMOGRAPHIC ANALYSIS

Table 2 presents the demographic analysis of participants centered on gender and age. Among the 620 respondents, 304 were males (49%) and 316 were females (51%). As the target population were the Gen Z individuals born in the years 1997-2012 thus the age category of the unit analysis was divided into 4 groups: 18-20, 21-23, 24-26 and 27-29. The highest number of participations is seen from the age group 24-26 (41.8%), which on general be the age when individuals have mostly concluded their degree level education and are either working or entering the workforce.

Table2. Demographic analysis.

Variable	Category	Frequency	Percentage
Gender	Female	316	51.0
	Male	304	49.0
Age	18-20	67	11
	21-23	162	26
	24-26	259	42
	27-29	132	21

The descriptive analysis is conducted to summarize and describe the basic, descriptive quantifiable features of dataset. Offering statistics which are meaningful and easy to comprehend for gaining basic knowledge of the variables like measure of central tendency, dispersion involved in the research. Table 3 presents descriptive analysis for cognitive flexibility, moral metacognition, career aspirations, digital literacy and self-actualization.

2. RELIABILITY ANALYSIS

The reliability testing was conducted to evaluate internal consistency of measurement model utilizing Cronbach's Alpha and Composite Reliability with SmartPLS. They assess whether the indicators of each construct reliably measure the same underlying concept. The value 0.70 or higher are considered acceptable for both Cronbach's Alpha and Composite Reliability.

Table 3. Reliability analysis.

Variables	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
Career Aspirations	0.910	0.914	0.926
Cognitive Flexibility	0.899	0.910	0.916
Digital Literacy	0.922	0.926	0.935
Moral Metacognition	0.960	0.962	0.964
Self-Actualization	0.926	0.930	0.938

Table 6 shows the reliability findings in this study; all constructs surpass the benchmark as all the values are above seven (>7). The Cronbach's alpha values lie between (0.899 – 0.960), Composite Reliability (rho_a) values are (0.910 – 0.962), Composite Reliability (rho_c) values are (0.916 – 0.964). Therefore, these findings demonstrate a strong level of internal consistency and confirm the reliability of measurement model.

3. CONVERGENT VALIDITY

The convergent validity was reviewed through Average Variance Extracted (AVE) in SmartPLS. The Average Variance Extracted measures the amount of variance explained by the construct in comparison to variance attributed to measurement error. In respect to AVE a value of 0.50 or higher is adequate indicating that the variable accounts for more of variance of its indicators.

Table 4. Convergent validity (ave).

Variables	Average variance extracted (AVE)
Career Aspirations	0.557
Cognitive Flexibility	0.510
Digital Literacy	0.591
Moral Metacognition	0.571
Self-Actualization	0.602

Table 7 shows that most of the construct of this study shows AVE value is 0.5 or higher; Career Aspiration (0.557), Digital Literacy (0.591), Moral Metacognition (0.571), Self-Actualization (0.602) exceeding the benchmark (>0.50) providing strong evidence of convergent validity within the measurement model. However, one construct had a slightly lower AVE, Cognitive Flexibility (0.480). Despite falling just below the threshold, it was retained because of the acceptable levels of reliability (Cronbach's alpha and Composite Reliability) (0.899, 0.910, 0.916) respectively, supporting that it contributes meaningfully to the overall measurement model and has strong theoretical foundation.

4. DISCRIMINANT VALIDITY

Discriminant validity was assessed to ensure that each construct in the measurement model is empirically distinct with respect to others. This assessment was performed with three established techniques offered in SmartPLS; Fornell-Larcker Criterion, Cross Loading and Heterotrait-Monotrait Ratio (HTMT).

5. FORNELL & LARCKER CRITERION

Fornell and Larcker Criterion was used to assess the Discriminant Validity of the data. This technique states that square root of a construct's AVE for each construct (diagonal values) must be higher than its correlation with other constructs (off-diagonal values).

Table 5. Fornell and larcker criterion.

Variables	Career Aspirations	Cognitive Flexibility	Digital Literacy	Moral Metacognition	Self-Actualization
Career Aspirations	0.746				
Cognitive Flexibility	0.653	0.693			
Digital Literacy	0.594	0.548	0.769		
Moral Metacognition	0.694	0.567	0.557	0.755	
Self-Actualization	0.586	0.617	0.652	0.623	0.776

As Table 8 shows each of the construct's square root of AVE exceeds its highest correlation with other constructs in their respective row and column. Therefore, demonstrating that all constructs have adequate discriminant validity.

6. HETEROTRAIT-MONOTRAIT RATIO

Discriminant validity was further assessed through Heteotrait-Monotrait Ratio (HTMT) with Smart-PLS. The HTMT values are required to be below the threshold of 0.85 which indicates adequate discriminant validity in measurement model.

Table 6. Heteotrait-monotrait ratio (HTMT).

	Heterotrait-monotrait ratio (HTMT)
Cognitive Flexibility <-> Career Aspirations	0.711
Digital Literacy <-> Career Aspirations	0.638
Digital Literacy <-> Cognitive Flexibility	0.585
Moral Metacognition <-> Career Aspirations	0.742
Moral Metacognition <-> Cognitive Flexibility	0.813
Moral Metacognition <-> Digital Literacy	0.581
Self-Actualization <-> Career Aspirations	0.630
Self-Actualization <-> Cognitive Flexibility	0.658
Self-Actualization <-> Digital Literacy	0.694
Self-Actualization <-> Moral Metacognition	0.649

As Table 6 shows in this study all the HTMT values ranges from (0.581 – 0.813) which falls within the threshold (<0.85). Even the highest HTMT is among Moral Metacognition and Cognitive Flexibility (0.813) which is still below the threshold value of (0.85). conforming that all constructs are empirically distinct i.e. supporting discriminant validity within the measurement model.

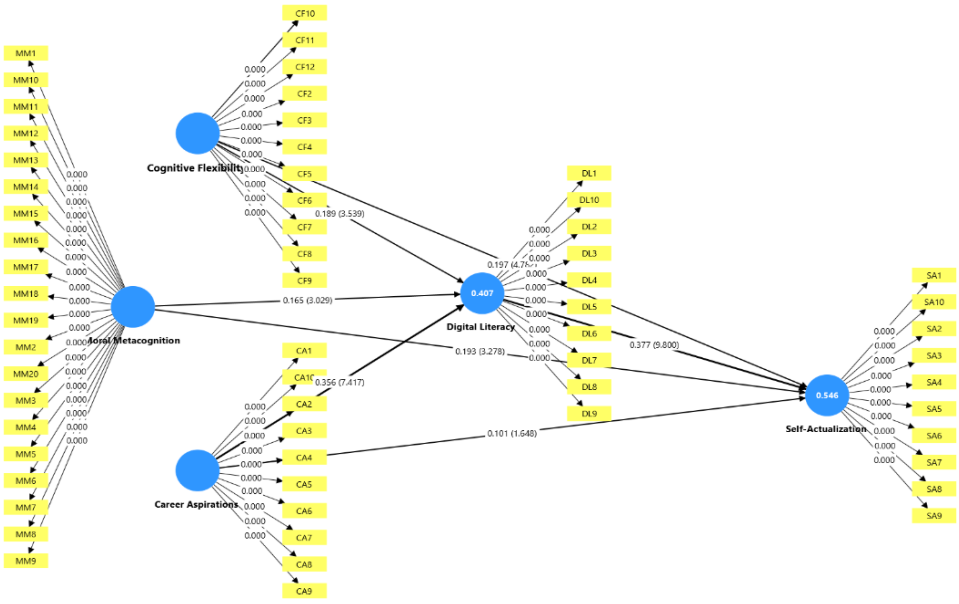

FIGURE 2. Structural model.

7. HYPOTHESIS TESTING

Table 10 exbibits the outcomes of hypothesis testing, it shows the direct, indirect and total effect over the construct.

Table 7. Hypothesis testing.

Hypothesis Statement	Total Effect	Direct Effect	Indirect Effect	P-value	Status
H1: Cognitive flexibility and digital literacy have significant and positive relation	0.189	0.189	-	0.000	Supported
H2: Moral metacognition and digital literacy have significant and positive relation	0.165	0.165	-	0.002	Supported
H3: Career aspiration and digital literacy have significant and positive relation	0.356	0.356	-	0.000	Supported
H4: There is significant and positive relation between digital literacy and self-actualization	0.377	0.377	-	0.000	Supported
H5: Digital literacy mediates the relationship between cognitive flexibility and self-actualization	-	-	0.071	0.001	Supported
H6: Digital literacy mediates the relationship between moral metacognition and self-actualization	-	-	0.071	0.004	Supported
H7: Digital literacy mediates the relationship between career aspirations and self-actualization	-	-	0.134	0.000	Supported
H8: There is significant and positive relation between cognitive flexibility and self-actualization	0.268	-	0.134	0.000	Supported
H9: There is significant and positive relation between moral metacognition and self-actualization	0.255	-	0.071	0.001	Supported
H10: There is significant and positive relation between career aspirations and self-actualization	0.234	-	0.062	0.099	Not Supported

The direct path CF and DL (β =0.189, t =3.539, p<0.01), CF and SA (β =0.197, t =4.782, p<0.01) highly significant relation among the constructs. Followed by positive and significant mediation (t =3.312, p<0.01), supporting the proposed hypothesis. The Bootstrap Confidence level in all the analysis outcomes didn't include zero. The direct path between MM and DL (β =0.165, t =3.029, p<0.01) and MM and SA (β =0.193, t =3.278, p<0.01) shows positive and highly significant relation and mediation (t =2.869, p<0.01). Safe to say that moral metacognition holds a tendency to impact self-actualization of Gen-Z. The direct path of CA and DL (β =0.356, t =7.417, p<0.01) is positive and highly significant while the direct path between CA and SA (β =0.101, t =1.64, p>0.05) is positive but not statistically significant. However, the mediating effect is positive and highly significant (t =5.621, p<0.0). In summary, as shown in Table 10, all the hypotheses are supported except for direct relation of career aspirations with self-actualization. Hence, the findings indicate that digital literacy partially mediates the relationship between moral metacognition, cognitive flexibility, and the dependent variable self-actualization, while fully mediating the relationship between self-actualization and career aspirations. This conclusion is interesting because it demonstrates how crucial digital literacy is for establishing professional career aspirations as well as personal goals for the new generation.

V. DISCUSSION

The study adds to the body of literature by examining the factors that influence Gen Z's self-actualization while also taking digital literacy into account. High ambition, digital nativity, and exposure to international trends are characteristics of the Gen Z generation. Both formal and informal pursuits of self-actualization have a direct impact on current digital solutions, moral leadership, and workplace efficiency. If given the right conditions to grow up in, this digital generation has a greater potential to drive the economy to unprecedented levels of prosperity. Maslow's theory is expanded upon when the self-actualization framework is applied to the digital age, where technology acts as a filter and facilitator of human potential.

The survey also emphasizes how this digital age perceives the relationship between cyber competency and internal growth factors. This study is essential for giving a thorough understanding of the new digital generation and how it has become the organization's most valuable resource. In the contemporary corporate climate, organizations are placing greater focus on cultivating human capital that is not just technologically adept but also purpose-driven, self-aware, and adaptable. But most of the research that has been done so far has focused on the environmental or external factors that affect workplace behavior, ignoring important interior psychological concepts like self-actualization, which helps people reach their full potential. Thus, there is little empirical research on how self-actualization can serve as a significant and quantifiable outcome in business settings.

Though the stronger effect seen here implies that contextual factors amplify their significance, the findings support previous studies on function of moral metacognition and cognitive flexibility in promoting self-actualization. However, they seem more significant in this context and reflect socioeconomic incentives unique to emerging economies career aspirations also correspond with previous research. Digital literacy emerged as a robust mediator consistent with recent scholarships yet, the results indicate a stronger effect than previously reported highlighting Gen Z reliance on digital platforms for growth and identity expression.

1. THEORETICAL IMPLICATIONS

By combining psychological ideas with socio-technological frameworks, this study theoretically provides a multifaceted model of self-actualization that is primarily suited for Gen Z. This study examines the factors that influence self-actualization, such as cognitive flexibility, the capacity to adapt to new and complex information, moral metacognition, the ability to reflect and adjust moral reasoning and reasoning, and career aspirations. It assesses how these factors are validated in the literature as being important for personal growth and decision-making, but their combined influence on self-actualization is not empirically examined. As a result, digital literacy acting as a mediator may help transform these mental traits and goals into concrete results that meet the digital generation's need for self-actualization.

2. PRACTICAL IMPLICATIONS

This study aims to investigate useful insights from a practical point of view for educational institutions, HR managers, business trainers, and career counselors to create structured work frameworks and tactics to draw in and get the best results from Gen Z. The business community today recognizes the value of this new generation's availability and desire to make a lasting impression on their careers. Understanding people's psychological, cognitive, and technological profiles will therefore help create upskilling programs that support adaptive leadership training, which may increase job satisfaction, lower turnover, and create a workforce with the digital, ethical, and cognitive skills required for long-term company growth.

3. LIMITATIONS & FUTURE DIRECTIONS

The study includes three constructs cognitive flexibility, moral metacognition and career aspirations which influences self-actualization among Gen Z, providing scope for novel ideas to be explored. As this digital generation is rapidly progressing and poised to become a modern workforce. The study did not find a statistically significant relation between career aspiration and self-actualization, suggesting that other factors might be more influential, leaving room for further research. Hence later studies could add into literature by testing other variables. The sample size for this study comprises of 620 Gen Z individuals which limits the study in addition to generalizability of Gen Z in rural or less digitalized areas. As individuals in rural areas may not have easy access to digital tool and technology. Digital literacy was used as a mediator in the study hence the possibility of uneven access to digital resources or exposure, e.g. in urban and rural areas, can influence disproportionality. Since the data collected is based on self-reported reactions, there may be some elements of self-report bias. The possibility that the responses from the respondents were thought to be socially acceptable impacting the finding's accuracy. The study implications give rise to future exploration of longitudinal design, cross country comparative studies, a larger sample size and exploring trends in Gen Y as well.

VI. CONCLUSION

The findings strongly support the proposed relationships among cognitive flexibility, moral metacognition, and career aspirations each having a significant positive impact on self-actualization. The results suggest that Gen Z possesses core traits necessary for personal growth - traits that, when supported, can lead to meaningful self-fulfillment. The study highlights valuable opportunities for educators, policymakers, and organizations to nurture these capacities. However, this optimism must be tempered with an awareness of structural challenges such as inequality and limited access to technology. While the study contributes to the understanding of how psychological, ethical, and digital factors interact, it is still exposed to limitations. The cross-sectional design, reliance on self-reported data, and cultural specificity of the sample suggests that future research should adopt longitudinal and mixed-method approaches to further validate these insights. Overall, this research highlights the importance of appropriate actions required particularly in digital access and moral development of Gen Z to enable their potential for empowered, self-directed growth in both personal and professional realms.

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Author Contributions

All authors contributed formally and equally to the development and planning of the study.

Conflicts of Interest

There is no conflict of interest declared by the authors.

Data Availability Statement

Upon request, data can be obtained from the authors.

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