Positive Intelligence and Work Performance

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ABSTRACT
This study aims to analyze the impact of positive psychology on job performance. It measures psychological factors which typically hinder job performance, the five pillars of PERMA as an indicator of positive intelligence, and self-assessed job performance. The present study was conducted through an online questionnaire composed of Shirzad Chamine's inner saboteur questionnaire, Kern's Workplace PERMA Profiler questionnaire, and Goodman & Syvantek's Job Performance Scale. The research was developed on a 457-respondent non-probabilistic cohort. One of our main findings is that the inner saboteurs fall into two clusters, one oriented toward performance and the other toward emotion. Positive intelligence, as measured through PERMA seemed to have a positive effect on job performance in the emotion-oriented saboteurs, while it has no or negative effect on the performance-oriented saboteurs.

KEYWORDS: *human resources, positive psychology, PERMA model, quality of life, work performance*

JEL CLASSIFICATION: *M54, O15*

1. INTRODUCTION

In recent years, a major shift has occurred in the discipline of organizational psychology and its implications for human resources management. Studies (Gruman & Budworth, 2022) have begun to focus on the characteristics of psychological health and the optimization of cognition, decision-making, and performance, whereas they were previously concerned exclusively with the pathologies of affect, cognition, and meaning making. This change in direction has coincided with the recent effort to impart human-like cognition and decision-making to AI systems. AI is being introduced into the human work environment at a rapid pace; it is becoming integrated into human work processes at every level. As such, we believe that a thorough understanding of the relationship between general well-being, including psychological well-being, and human work performance is essential to ensure a sustainable work environment going forward. It is widely accepted that humans develop various psychological coping strategies starting in childhood, some of which may become maladaptive in adulthood or in contexts widely differing from those in which they were formed. It is also well-known that humans adopt certain strategies to counteract those maladaptive responses, thereby keeping self-sabotaging behaviors in check or even resolving them permanently. The most closely studied and highly vetted therapeutic strategies are those belonging to cognitive-behavioral therapy. This form of therapy emphasizes the role of cognition in modulating emotion and behavior. Our premise in this study was that there exists some form of intelligence (cognitive capability) which can modulate the emotional and behavioral effects of the psychological coping mechanisms developed early in life. This type

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of intelligence, we presumed, would aid in enhancing work performance by dampening the detrimental effects of those coping mechanisms or even co-opting them in service of the goal.

Positive psychology focuses on the characteristics of happiness and other related psychological states, processes, and mechanisms. Its aim is to prevent, rather than treat, psychological pathologies. A lot of work has been done on well-being, which is considered to be closely tied to, if not equivalent to, happiness. One measure of well-being that is widely used today is Butler & Kern's PERMA questionnaire (Li & Liu, 2023), comprised of Seligman's five pillars of well-being: Positive emotion, Engagement, Relationships, Meaning, and Accomplishment (Butler & Kern, 2016; Kern, 2014; Seligman, 2011). These pillars represent five basic human needs which, if met, result in a sense of general well-being. Life is a continuum; PERMA has application in life in general, and in the workplace specifically. We welcome positive emotion while we work; we wish to be engaged (in a state of flow) in our work tasks; we want to build positive relationships at work; we want to find our work meaningful; we want to have a sense of accomplishment in our work. Although these five pillars are closely interconnected and the PERMA model has even been criticized as being statistically somewhat redundant (Goodman et al., 2017; Kashdan, 2017), they are conceptually separate and can be worked on separately, which is the strong point of this model (Seligman, 2018). It can be implemented straightforwardly in management and coaching, which is the reason we chose to work with it in this study.

How can this positive intelligence be easily measured through a widely available questionnaire? Our analysis of the literature yielded no model other than Seligman's PERMA model and, on the measurement side, Butler & Kern's PERMA Profiler. Because we were interested in the effect of positive intelligence on job performance, we used Kern's Workplace PERMA Profiler questionnaire (Kern, 2014) comprising 23 items. This questionnaire measures Seligman's five components of well-being: Positive emotion, Engagement, Relationships, Meaning, and Accomplishment (with two extensions: Negative emotion and Health).

Briefly, positive emotions are emotions such as love, compassion, a sense of achievement, joy, gratitude, enthusiasm. They can be learned and cultivated (Fredrickson, 2001). The main advantage of positive emotions, apart from the immediate and inherent benefit of having them, is that they provide resiliency (Folkman & Moskowitz, 2000; Tugade et al., 2004). Engagement is akin to Csikszentmihaly's flow that is, the capacity to become completely engrossed in one's immediate activity or circumstance (Csikszentmihalyi, 1990). We enter into a state of flow when we perform an activity that we enjoy, and that we find suitably challenging. If the task is too easy, we become bored. If it is too difficult, we become frustrated. Finding the precise level of difficulty that keeps us engrossed is the key to entering a state of flow. Flow, or engagement, has been found to alleviate depression and increase happiness (Seligman et al., 2005). Relationships refer to all of our relationships, within the family, at work, in our network of friends and acquaintances. Having high-quality relationships has been found to stave off cognitive and physical decline in later years (Siedlecki et al., 2013). Meaning is perhaps the most difficult of the five pillars of PERMA to grasp. It may be characterized as having a sense of direction in life, or having the sense that our life and all of the activities and relationships we engage in really matter, in a fundamental, immutable, and perhaps transcendent way. Viktor Frankl famously spoke of meaning within the context of the Nazi holocaust (Frankl, 1984); Alexander Solzhenitsyn spoke of meaning within the context of political exile in communist Siberia (Solzhenitsyn, 1973). It has been found that horrific events are usually endured more easily by people who have a sense of overall meaning and purpose. At the other end of the spectrum, we might speculate that sudden fame and fortune are also endured better by people

who have a well-developed sense of meaning. Although Engagement and Meaning seem to share certain characteristics, engagement seems to emphasize the present moment and to lift the experiencer out of his or her immediate material circumstances, whereas meaning tends to integrate past, present, and future into a narrative with a coherent plot. Accomplishment refers to our inner sense of efficacy in the world, to the extent that we deem ourselves capable of effecting changes in the world and controlling our circumstances. A sense of helplessness is well-known to lead to depression, while self-confidence is linked a general sense of satisfaction, well-being and happiness.

We assumed that PERMA is related to positive intelligence, in that the well-being comprised of the five pillars of PERMA is made possible by the modulating action of positive intelligence on the internal saboteurs. So, while PERMA describes a state, not a capacity, we consider that the PERMA state is the result of the deployment of the positive intelligence capacity. Therefore, we measured the internal saboteurs, the five pillars of PERMA, and the job performance, in order to analyze the effect of positive intelligence on job performance.

Newer forays into positive psychology have partially criticized the initial conceptual framework, which is now deemed to suffer from the same faults that pioneering theories usually suffer from. Wong & Roy's article, Critique of positive psychology and positive interventions (Wong & Roy, 2017) is one of the works which mark the beginnings of a new way of approaching psychological health, branded "PP2.0", where the initial fundamental dichotomy – positive vs. negative – is replaced by a more nuanced understanding of the complex dynamic between the various psychological factors shaping our experience – emotions, beliefs, perceptions, cognition, volition, memory, behavior. These forces are not considered inherently beneficial or harmful: rather, they are identified as playing certain roles in certain contexts, which may change and yield different results according to the particular dynamic. However, it must be said that practical considerations, related both to conceptualization and experimentation, tend to favor a dichotomic understanding of positive psychology as well as other topics in psychology, as argued by some authors (Lazarus, 2003; Lomas & Ivtzan, 2015). Wong and Roy have even argued that both the positive and the negative effects of a psychological factor, for example, an emotion, contribute to the generation of a sense of well-being (Wong & Roy, 2017).

Another criticism leveled at the first wave of positive psychology is that it studies the purported components of happiness piece-meal instead of holistically. Wong and Roy (2017) have raised the objection that the human psyche, and the human being generally, cannot be analyzed into personality traits (Wong & Roy, 2017); instead, the whole ensemble of factors must be taken into account and its internal dynamic understood. This means that the advice to lead with one's strengths and forget one's weaknesses might be detrimental to well-being. Instead, a well-rounded general "practical wisdom", as discussed by Schwartz and Sharpe (2010) and more remotely, by Aristotle (Nichomachean Ethics), might lead to a more mature and complete happiness.

One important criticism of the initial conceptual framework of positive psychology is that it lacks a unified conceptual underpinning. Positive psychology is still in its initial stages. It is still gathering data, using questionnaires and statistics, which may need to be fundamentally revised. It is still trying to find better questions to ask. The work already done regarding the dysfunctions of the psyche has not translated well into work on positive psychology. Also, there seem to be elements missing. For example, Wong and Roy (2017) propose the inclusion of

Duckworth's concept of grit (Duckworth, 2016) and Koenig's concept of spirituality (Koenig, 2011) into the list of measurable characteristics, alongside PERMA.

A well-known problem which has plagued survey-based psychological studies is that of self-assessment. Positive psychology has inherited this problem from pathology-oriented psychology. Also, because positive psychology focuses on happiness, which is a notoriously age-sensitive phenomenon, the age range of survey respondents must be extended drastically, to cover not only college-age respondents but those far to either side of that narrow age swath.
Finally, an important limitation to traditional methodology: the questionnaires are usually quite culture-sensitive. In a well-known comparison between Asian and Western cultures, it has been revealed that a widely different value is placed on the feeling of pride (Lazarus, 2003) and that questionnaires exploring this variable may yield unreliable, nonsense results.

As such, our aim in this study was to obtain results which can orient us in a certain direction, and not necessarily to fix certain phenomena into certain rigid categories. Whatever knowledge has been gained through this study, it is intended to provide a general, rather loose conceptual framework for managers and coaches on the ground.

2. MATERIALS AND METHODS

2.1 Research objectives

Our overall objective in this study was to measure and analyze the modulatory impact of positive intelligence on self-perceived work performance, given the possible detrimental effects on work performance of the nine internal saboteurs (controller, hyper-achiever, restless, stickler, pleaser, hyper-vigilant, avoider, victim, hyper-rational) examined by Shirzad Chamine. In our model, we equated positive intelligence with the contextually adequate deployment of the five components of PERMA (Positive emotion, Engagement, Relationships, Meaning, Accomplishments) (Butler & Kern, 2016; Seligman, 2011) as a mediating strategy between the nine internal saboteurs and self-perceived work performance. We deemed the effect of the saboteurs upon work performance as either direct or indirect, depending on the presence and strength of the modulating effect of positive intelligence upon the saboteurs with respect to work performance.

Our specific objectives were as follows:

1. To measure the strength of each of the nine internal saboteurs and analyze them according to emerging groups of saboteurs, if any;
2. To translate and adapt the Workplace PERMA Profile questionnaire to Romanian respondents; also, to conduct a confirmatory data analysis of the translated and adapted questionnaire;
3. To identify if positive intelligence might play a mediating role between the internal saboteurs and work performance.

In Figure 1 we present our proposed model, with positive intelligence as mediator between the internal saboteurs and self-perceived work performance, or modulator of the effect of the saboteurs on self-perceived work performance.

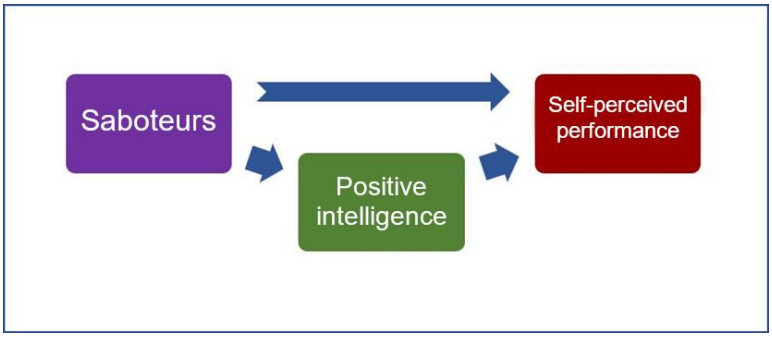

Figure 1. The Proposed Mediation Model
Source: Authors' contribution

2.2 Research participants

The present study was based on the answers of 457 people. The sampling was a non-probability one, based on the availability criteria. In terms of gender representation, 348 of the participants were women and the rest were men. Regarding the age aspect, respondents varied from 15 to 65 years old, with an average age of 30 years old and a median age of 26 years old (standard deviation 10.5).
Additionally, with respect to the work profile, 19% of the respondents hold management roles, 72% of the participants do not have management roles, and the rest of 9% declared themselves as self-employed.

2.3 Instruments and methods

We used three questionnaires in our study:
1) *Goodman and Syvantek's Job Performance Scale* as found already translated into Romanian and adapted on the Research Central website (Iliescu, n.d.);
2) *Kern's 23-item Workplace PERMA Profiler questionnaire* with the NH extension, which we translated into Romanian and adapted to the Romanian respondent base (Kern, 2014);
3) *Chamine's 45-item questionnaire on the internal saboteurs* translated into Romanian and adapted to the Romanian respondent base (Chamine, n.d.). These three questionnaires were fused into one questionnaire with distinct sections in Google Forms, in the order mentioned above. A 4-item demographic data questionnaire was appended at the end.

With respect to the *Goodman and Syvantek's Job Performance Scale* and to the *Chamine's 45-item internal saboteur questionnaire*, both ones yielded good internal consistency results, based on the McDonald's Omega coefficient computation, hence, no item was removed (Radu, 2021).

Regarding the *Kern's 23-item Workplace PERMA Profiler questionnaire*, we translated Kern's questionnaire into Romanian and adapted it to the Romanian respondent base. To check the internal consistency of the questionnaire, we applied McDonald's Omega coefficient, which showed a slight internal inconsistency on the Engagement subscale, as shown in Table 1. It is possible that our translation of item E3 (the third question relating to Engagement) might have thrown off some of the respondents, as shown in Table 2.

Table 1. Internal consistency of Kern's Workplace PERMA Profile questionnaire with the NH extension

Component of PERMA	Number of items	McDonald's Omega coefficient
P – Positive emotion	3	0.895
E – Engagement	3	0.726
R – Relationships	3	0.741
M – Meaning	3	0.865
A – Accomplishment	3	0.780
N – Negative emotion	3	0.782
H – Health	3	0.908
PERMA + 1 question happiness	16	0.939

Source: Authors' contribution

Table 2. Internal consistency of the Engagement subscale

Item	McDonald's Omega coefficient if other items are removed	Correlation with other items
E1	0.476	0.601
E2	0.521	0.577
E3	0.766	0.370

Source: Authors' contribution

We did not remove item E3, even if its removal would have improved the reliability of the instrument, because the number of items in the subscale was too low. We believe that we were not sufficiently successful in conveying the concept of flow, to which this item refers. One of our future tasks is to improve the wording of this item in the Romanian language – a somewhat difficult task, given the novelty of this concept in Romanian culture and the current lack of precise native terminology.

3. RESULTS

3.1 The analysis of the internal saboteurs

For Chamine's questionnaire, we chose to use Bartlett's Test of Sphericity ($p < 0.001$) to test for clusters of saboteurs, taking our cue from Chamine's own grouping of saboteurs into three distinct styles and three distinct motivations. We also found the Kaiser-Meyer-Okin index to be useful in revealing any underlying factors which might affect the data variance, as shown in Table 3:

Table 3. Kaiser-Meyer-Olkin index (Chamine's questionnaire)

Variable	Kaiser-Meyer-Olkin index
Total	0.834
Hyper-vigilant	0.855
Restless	0.873
Avoider	0.829
Pleaser	0.872
Controller	0.805
Hyper-ambitious	0.827
Hyper-rational	0.789
Stickler	0.866
Victim	0.776

Source: Authors' contribution

In order to decide which factors to keep, we applied Horn's parallel analysis with varimax rotation, and thus arrived at two clusters of saboteurs, as shown in Table 4.

Table 4. Two main clusters of internal saboteurs, according to the strength of underlying factors

	Cluster		
Saboteur	**1**	**2**	**Uniqueness**
Victim	0.900		0.189
Avoider	0.849		0.278
Hyper-vigilant	0.728		0.355
Restless	0.706		0.395
Pleaser	0.644		0.484
Hyper-ambitious		0.811	0.324
Controller		0.804	0.312
Hyper-rational		0.771	0.405
Stickler		0.697	0.328

Source: Authors' contribution

Cluster 1 (Victim, Avoider, Hyper-vigilant, Restless, Pleaser) seems to be undergirded by an emotional factor, while Cluster 2 (Hyper-ambitious, Controller, Hyper-rational, and Stickler) appears to have a performance-oriented underlying factor. Thus, we call Cluster 1 the emotional cluster, and Cluster 2 the performance cluster.
In order to verify the number of clusters (two), we ran the data through Cattell's scree test, as shown in Figure 2.

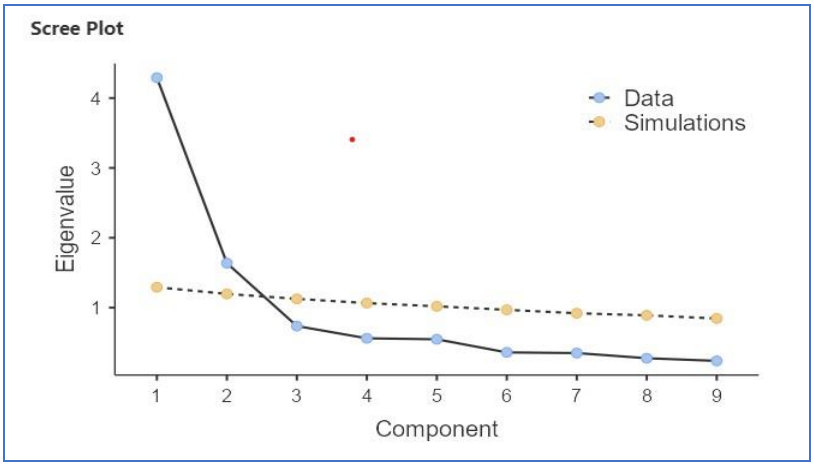

Figure 2. Cattell's scree plot of the nine internal saboteurs
Source: Authors' contribution

This number of clusters is confirmed further by calculating the eigenvalues of the factors underlying the clusters, as shown in Table 5. We can see that the two clusters account for the entire data set.

Table 5. Eigenvalues for the two clusters of saboteurs

Cluster	Weight	% of the variance	Cumulative (%)
1	3.22	35.8 %	35.8 %
2	2.71	30.1 %	65.9 %

Source: Authors' contribution

3.2 The translation and adaption of the Workplace PERMA Profile questionnaire - a confirmatory data analysis of the questionnaire

In order to estimate the cultural reliability of the Workplace PERMA profiler questionnaire, we conducted a confirmatory factor analysis (CFA) on our translated questionnaire. We chose this type of analysis because its relevance has been sufficiently proven in recent studies on factor structure (Byrne, 2010; Davis, 2019). The Negative emotions and Health subscales were eliminated from our analysis, leaving only the original PERMA set. Table 6 shows the factor weighting, while Table 7 shows the factor covariances.

Table 6. Confirmatory Factor Analysis (CFA) – Factor weighting

Factor	Indicator	Estimate	SE	Z	p	Stand. Estimate
P – Positive emotions	P1	1.878	0.0795	23.63	< 0.001	0.888
	P2	1.874	0.0847	22.12	< 0.001	0.853
	P3	1.565	0.0745	21.00	< 0.001	0.824
E – Engagement	E1	1.498	0.0911	16.45	< 0.001	0.692
	E2	1.773	0.0738	24.03	< 0.001	0.909
	E3	0.71	0.0937	7.58	<0.001	0.356
R – Relationships	R1	1.273	0.098	12.99	< 0.001	0.608
	R2	1.42	0.0941	15.08	< 0.001	0.680
	R3	1.597	0.0864	18.49	< 0.001	0.797
M – Meaning	M1	1.557	0.0787	19.79	< 0.001	0.793
	M2	1.657	0.0694	23.87	< 0.001	0.896
	M3	1.723	0.0859	20.06	< 0.001	0.801
A – Accomplishment	A1	1.286	0.0874	14.71	< 0.001	0.701
	A2	1.084	0.0597	18.15	< 0.001	0.801
	A3	1.155	0.0648	17.81	< 0.001	0.790

Source: Authors' contribution

Table 7. Confirmatory Factor Analysis (CFA) – Factor covariances

Factor	Indicator	Estimate	SE	Z	p	Stand. Estimate
P – Positive emotions	P	1				
	E	0.949	0.0165	57.5	< 0.001	0.949
	R	0.794	0.0295	26.9	< 0.001	0.794
	M	0.839	0.0222	37.7	< 0.001	0.839
	A	0.674	0.0376	17.9	< 0.001	0.674
E – Engagement	E	1				
	R	0.637	0.0409	15.6	< 0.001	0.637
	M	0.899	0.0206	43.7	< 0.001	0.899
	A	0.716	0.039	18.4	< 0.001	0.716
R – Relationships	R	1				
	M	0.698	0.0361	19.3	< 0.001	0.698
	A	0.698	0.0395	17.7	< 0.001	0.698
M – Meaning	M	1				
	A	0.767	0.0356	21.5	< 0.001	0.767
A – Accomplishment	A	1				

Source: Authors' contribution

Based on the data shown above, we deem the translated Workplace PERMA Profile questionnaire to be sufficiently robust, despite the rather weak CFA result. We show in Table 8 similar analyses conducted on the original questionnaire (3751 respondents), on a questionnaire applied to Japanese respondents (310), and on South Korean respondents (316). For ease of reference, we show our results alongside (457 respondents). The Kern's original

questionnaire, written in English and applied internationally, showed a superior fit, while our Romanian questionnaire showed a fit comparable to those of the Japanese and Korean questionnaires.

Table 8. Fit indices Workplace PERMA Profile – Comparative analysis

Study	χ^2 (80)	CFI	TLI	RMSEA	SRMR
Original study – international (Butler & Kern, 2016)	10.606	0.967	0.956	0.065	0.031
Japanese study (Watanabe et al., 2018)	351.3	0.892	0.858	0.105	0.051
Korean study (Choi et al., 2019)	383.04	0.909	0.881	0.110	0.054
Our Romanian study	513	0.904	0.874	0.109	0.059

Source: Authors' contribution

3.3 The relationship between well-being, internal saboteurs, and work performance

In the following step, we aim to analyze if the general sense of well-being mediates the relationship between the saboteurs and work performance.

The PERMA model yields a rich conceptual framework for explaining the human capacity to sustain a positive attitude to life, to solve problems as they appear, and to control those impulses and cognitive framings which may interfere with performance. Our premise was that positive intelligence, understood as the capacity to access each component of the PERMA model, can modulate the effect of our internal saboteurs on work performance, mediating the action of the saboteurs. Total PERMA is also taken as an indicator of the sense of general well-being. Thus, we believe that the capacity (positive intelligence) to ensure an enduring sense of general well-being (measured by PERMA) can enhance work performance, whether it is task-oriented or contextual. Our data (Table 9) show that, indeed, PERMA does modulate each internal saboteur to some extent, dampening its negative effects on work performance and perhaps also "hijacking" it in favor of the intended effect, which is positive work performance; indeed, in the case of the Avoider and the Victim, there was almost no direct link between the saboteur and work performance. However, the effect of PERMA on the saboteurs was not always high. In some cases, it was very low, albeit statistically significant. For example, the Controller had an almost exclusively direct link with performance. The Hyper-ambitious, the Stickler, and, somewhat surprisingly, the Pleaser, were not far behind the Controller in their non-reliance on PERMA. Perhaps, these four saboteurs have as their common characteristic a certain autonomous, self-starting tendency.

Table 9. Total PERMA as a measure of the sense of general well-being and its mediation effect between each saboteur and total performance

Internal saboteur	Effect	Estimate	SE	Z	p	% Mediation
Hyper-vigilant	Indirect (a x b)	-0.1618	0.0333	-4.870	< 0.001	69.50 %
	Direct (c)	0.0709	0.0532	1.330	0.183	30.50 %
	Total (c + a x b)	-0.0910	0.0601	-1.510	0.130	100.00 %
Restless	Indirect (a x b)	-0.2262	0.0414	-5.47	< 0.001	53.40 %
	Direct (c)	0.1978	0.0632	3.131	0.002	46.60 %
	Total (c + a x b)	-0.0284	0.0715	-0.397	0.691	100.00 %
Avoider	Indirect (a x b)	-0.1880	0.0375	-5.008	< 0.001	93.53 %
	Direct (c)	-0.0130	0.0616	-0.211	0.833	6.47 %
	Total (c + a x b)	-0.2009	0.0688	-2.921	0.003	100.00 %

Internal saboteur	Effect	Estimate	SE	Z	p	% Mediation
Pleaser	Indirect (a x b)	-0.0726	0.0389	-1.860	0.062	16.80 %
	Direct (c)	0.3593	0.0605	5.940	< 0.001	83.20 %
	Total (c + a x b)	0.2867	0.0715	4.010	< 0.001	100.00 %
Controller	Indirect (a x b)	0.0119	0.0361	0.331	0.741	3.99 %
	Direct (c)	0.2869	0.0594	4.832	< 0.001	96.01 %
	Total (c + a x b)	0.2988	0.0694	4.303	< 0.001	100.00 %
Hyper-ambitious	Indirect (a x b)	0.0857	0.0340	2.520	0.012	16.80 %
	Direct (c)	0.4228	0.0574	7.360	< 0.001	83.20 %
	Total (c + a x b)	0.5084	0.0660	7.700	< 0.001	100.00 %
Hyper-rational	Indirect (a x b)	0.1010	0.0364	2.760	0.006	24.80 %
	Direct (c)	0.3050	0.0622	4.900	< 0.001	75.20 %
	Total (c + a x b)	0.4050	0.0712	5.700	< 0.001	100.00 %
Stickler	Indirect (a x b)	-0.0523	0.0425	-1.230	0.218	13.30 %
	Direct (c)	0.3424	0.0678	5.050	< 0.001	86.70 %
	Total (c + a x b)	0.2901	0.0798	3.640	< 0.001	100.00 %
Victim	Indirect (a x b)	-0.2384	0.0327	-7.281	< 0.001	87.90 %
	Direct (c)	-0.0328	0.0517	-0.634	0.526	12.10 %
	Total (c + a x b)	-0.2711	0.0535	-5.063	< 0.001	100.00 %

Source: Authors' contribution

4. DISCUSSIONS AND CONCLUSIONS

In this study, we brought three main contributions:

1) we found two clusters of inner saboteurs which seem to align well with the two traditional genders;
2) we translated, adapted, and validated the Workplace PERMA Profiler questionnaire, as well as we proposed PERMA as a suitable measure of positive intelligence, with results which merit further analysis;
3) we identified that positive intelligence plays a mediating role between the internal saboteurs and work performance.

These findings create important opportunities for fellow researchers and human resources professionals in their quest for a better understanding of the human mind and behavior, as well as the creation of modern HR systems. Therefore, the field of positive intelligence is wide open and there is ample room for improvement of completed studies and design of new ones.

Regarding the results of our first research objective, the two clusters of saboteurs are not surprising. They overlap quite well with the traditional gender profiles. However, a more fine-grained study is needed to clarify whether or not there is a significant difference between successive generations. This information is especially valuable for managers, but also for educators at different levels of teaching.

With respect to the translation of the Workplace PERMA questionnaire, it is largely satisfactory, but it can be improved. In our next deployment of this instrument, we aim to use an improved translation of this questionnaire. We took PERMA as a reasonable stand-in for positive intelligence, due to the lack of a widely available, widely accepted measure of positive intelligence in the recent literature.

Additionally, much work is needed to clarify to what extent PERMA (perhaps with its NH extension) is a state resulting from the application of positive intelligence. We mentioned the dip in PERMA around the age of 45; it is also commonly said that people at around that age enter a "midlife crisis" and seem to explore atypical, sometimes dangerous, avenues of thought, emotion, and behavior. People in the throes of this crisis of meaning sometimes appear to have taken leave of their senses – they seem anything but wise. The Sage is missing; the mind has run amok. It would be interesting to find out why this destabilizing period takes place, whether or not it is actually the Sage who matures at this time, and how, precisely, the Sage cultivates each of the pillars of PERMA.

Our study yielded several interesting results, some of which were expected, while others were unexpected. Furthermore, some of our results may have been due to the limitations inherent in our chosen instruments and sampling. An important limitation is the fact that the age distribution was problematic in that PERMA, as a measure of the sense of general well-being, tends to reach a trough around the age of 45 years – the so-called" midlife crisis" -, rising again with age. A future study should analyze data from respondents who occupy the same age ranges, in order to more closely trace the natural fluctuations in cognitive acuity as well as objectivity in self-assessment. Also, a larger sample size is needed for a more reliable analysis.

Furthermore, the language in the questionnaires used in our study can be improved to better reflect the meaning of English as closely as possible.

One important question remains unanswered, a topic for future studies: namely, why positive intelligence, as measured through PERMA, seemed not only to not affect job performance in certain performance-oriented saboteurs, but to also slightly hinder it. We propose two possible reasons for this. The first obvious one is that this study was based on self-assessment. It would not be an unreasonable assumption that the respondents' saboteur profile and PERMA profile might influence their assessment of their inner saboteurs, the five pillars of PERMA and their job performance. Thus, we might imagine, for example, that a Stickler might rate his or her job performance, relationships, and accomplishments lower than non-Sticklers. A Controller might rate relationships lower while rating his or her job performance higher than a non-Controller. A Hyper-rational might rate positive emotion lower than a non-Hyper-rational. And so on. This brings us to the second reason why for some saboteurs PERMA seems to have no or negative effect, namely that the performance-oriented saboteurs are specifically designed to enhance performance. So, a performance-oriented saboteur might boost performance even in the absence of well-being generally or of certain facets of well-being, such as relationships. Not only that, good relationships, for example, might actually be perceived as deterring from the highest possible job performance. The same might be said about meaning or engagement. More studies are needed to clarify what, if any, skewing effect each saboteur has on self-assessment, to what extent and at what level of intensity each saboteur enhances or hinders job performance, and what role positive intelligence plays in the life of each saboteur.

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