

Integrating cognitive, motivational and emotional self-regulation in early stage entrepreneurs

VOLUME 2 OF 2: APPENDICES

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APPENDICES PERTAINING TO CHAPTER 7

Appendices pertaining to Chapter 7

Appendix 7.1. Summary of Sources of Material for the design of the Interview and Questionnaire

<i>Section</i>	<i>Topic</i>	<i>Source of Method</i>
Interview		
Section 3	General Information	Lans et al (2004) and self-developed
Section 4 & 6	Planning	Kraus (2003); Frese et al. (2007)
Section 5 & 7	Anticipatory Emotions	Barsade & Gibson (2007); Bagozzi, Baumgartner & Pieters (1998)
Section 8	Entrepreneurial Orientation Learning Orientation Innovation Orientation Autonomy Orientation	Kraus (2003)
Questionnaire		
1	Self-perceptions of success	Kraus (2003)
1	Empirical measures of success	Baron (2007)
2	Entrepreneurial Orientation Risk-taking	Kraus (2003); Kraus et al (2005) Gomez-Mejia and Balkin (1989); Norton and Moore (1998)
	Competitive Aggressiveness	Covin & Covin (1990)
	Personal Initiative	Frese et al (1997); Frese et al (1996)
3	Entrepreneurial Self-Efficacy Scale	DeNoble, Jung & Ehrlich (1999)
3	Creative Self-Efficacy Scale	Tierney & Farmer (2002)
4	Work Engagement	Schaufeli et al (2002)
5	Problem-Focused Coping	COPE; Carver, Scheier & Weintraub (1989)
6	Emotion Regulation Questionnaire (ERQ)	Gross & John (2003)
7	Demographic information Job experience Education	Self-developed
External Questionnaire		
	External Evaluation of Success	Adapted from Kraus (2003)

Appendix 7.2. Background Information Questionnaire

Participant ID:

Date:

1a. Have you, alone or with others, started a new independent firm, or are you currently trying to start a new independent firm?

Yes

No

(Please circle as appropriate)

(If no, please move on to question 2a overleaf).

1.b. Do you own a share in this business?

Yes

No

1.c. When was this business started (please indicate how long ago in **months**)
months

1.d. Please give details about the type of business and the main products/services.

1.e. Where is this business located?

Town/City: _____ County: _____

1.f. Has this business started to pay wages or salaries?

Yes

No

1.g. If this business is paying wages or salaries, for how long (**in months**) has it been doing so?
months

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2a. Have you ever, alone or with others, attempted to start a business and given up?
(Please circle as appropriate)

Yes

No

2.b. If **yes**, please indicate the **number** of businesses which you have started:

0 (No)

1

2

3

4

5

6 or more

3.a. Have you ever been the owner of a business that may have become inactive, shut down, sold, or transferred?
(Please circle as appropriate)

Yes

No

3.b. If **yes**, please indicate the **number** of businesses which became inactive, shut down, sold or transferred:

0 (No)

1

2

3

4

5

6 or more

4. Would you be willing to take part in an interview which forms part of research examining how entrepreneurs learn?
(Please circle as appropriate)

Yes

No

Appendix 7.3. Interview Protocol

Materials Needed

- | | |
|-----------------------------------|--|
| -Recording device plus microphone | -Contact Details Form |
| -paper and pens | -Questionnaire |
| -Screening Questionnaire | -External Evaluation Form for consent. |
| -Cards | -Marking Schemes |

1. Introduction

- The purpose of this interview is to look at the **goals** entrepreneurs set for themselves.
- The results of your interview will be pooled with those of other similar interviews to examine whether any common themes will emerge, and whether these can then be linked to performance and success.

2. Informed Consent

Before I start, I need to let you know that:

- consenting to take part in this research is *voluntary and you can withdraw at any time*.
- any information provided will be considered private and *treated confidentially*.
- this research is guided by **the Code of Ethics** devised by the **Psychological Society of Ireland**.

Finally, before starting, I'd like to ask you whether you would mind if I record the interview, the reason being that in order to be able to examine the results of all the interviews, I need to keep an accurate record of what was said.

These recordings will only be used for the purposes of my research and will remain in my possession. Once the information has been analysed, the data will be destroyed.

PRESS RECORD BUTTON.

3. General

3.1. To begin with, could you give me a general picture of your company?

(PROMPT: Can you give me some examples of products or services that you offer?)

get information on type of company to enable classification into one of the following sectors

- **Extraction.** *Agriculture, forestry, fishing and mining (extraction of products from the natural environment).*
- **Transformation.** *Construction, manufacturing, transportation, and wholesale distribution (physical transformation or relocation of goods and people).*
- **Business services.** *Where the primary customer is another business.*
- **Consumer-oriented.** *Where the primary customer is a physical person (e.g. retail, restaurants and bars, lodging, health education, social services and recreation).*

Find out what country business is based in.

3.2. How did you get into this area of work/business?/ What prompted you to start your own business?

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4. Goals and Strategy Process Characteristics (Planning)

To begin with, I'd talk quite generally about your business. In this section, I am interested in your overall goals for your business. (What are you most interested in? What targets do you have? What do you want to achieve in your business?)

I have written down a number of goals that have been shown to be important. I would like to know, **what ones are most important for your business**, and which ones are least important.

Please put these cards into an order of importance. Start with the most important one, then select the next most important one etc.

Write down the ranking of the cards: 1. 'innovativeness', 2. 'improve marketing strategy', 3. 'improve product/service', 4. 'perform better than competitors', 5. 'expanding', 6. 'make more profit'.

In the following, discuss the two most important goals (no. 1 and no. 2) in detail with regard to goal specificity, goal difficulty and strategy.

Ask for completeness, realism, planning and proactiveness.

Prompts: *What do you mean by...? Can you give me an example for...? Do you want to do it differently in the future, how?*

General prompt: *repeat what S just said.*

DON'T SAY: *e.g. Are you planning this in detail.*

DON'T STOP until it is known which strategy is used here (*oppor, critp, compl, react*)

One at a time, I'd like to discuss your two most important goals (goals no. 1 and goals no. 2) in a little more detail.

GOAL NUMBER 1

4.1. So, focusing on (**point to goal no. 1**), can you tell me a bit more about your goals in this area. What do you want to achieve in this area? What do you aim for? (*Ask questions one at a time- not together*)

Aim: to find out what objectives are

Should lead to a description of operational subgoals

Be sure not to suggest any specificity.

4.1.2. Do you think this is a goal which is difficult to achieve or is it easy to achieve?

[Prompt: *Do you think that your competitors have easier or harder ones?]*

Don't stop until you know how specific or difficult the goal is.

In the following (section 1.2.) discuss the strategies of goal no. 1 in detail.

What needs to be known is:

- *any/how much planning*
- *how much proactiveness*
- *how much reactiveness,*

so a decision on "reactive", "opportunistic", "complete planning", and "critical point planning" can be made

4.2.1. You have said:...(repeat the goals and subgoals that S has developed). How do you go about achieving this goal/ these goals? or How do you reach this goal? or How do you do it?

4.2.2. What have you already done to achieve this goal? (possibly ask this question twice; ask for examples)

4.2.3. How have you done this in the past?

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Only if relevant

5. Anticipatory emotions (Barsade & Gibson, 2007; Bagozzi, Baumgartner & Pieters, 1998)

5.1. If you succeed in achieving your goal of (Goal No. 1), how intensely do you anticipate you will feel each of the following emotions? [*give participant Anticipatory Emotions Answer Sheet*]

5.1.1. Overall, how successful would you say you are at altering these emotions in order to reach your stated goal? [*give participant Anticipatory Emotions Answer Sheet*]

5.2. If you **do not succeed** in achieving your goal of (Goal No. 1), how intensely do you anticipate you will feel the following emotions? [*give participant Anticipatory Emotions Answer Sheet*]

5.2.1. Overall, how successful would you say you are at altering these emotions in order to reach your stated goal? [*give participant Anticipatory Emotions Answer Sheet*]

GOAL NUMBER 2

Now the same for goal no. 2.

6.1. Can you tell me a bit more about your goals in this area (**point to goal no. 2**); what do you want to achieve in this area? What do you aim for? (*Ask questions one at a time- not together*)

Aim: to find out what objectives are

Should lead to a description of operational subgoals

Be sure not to suggest any specificity.

6.1.2. Do you think this is a goal which is difficult to achieve or is it easy to achieve?

[Prompt: Do you think that your competitors have easier or harder ones?]

Don't stop until you know how specific or difficult the goal is.

In the following discuss the strategies of goal no. 2 in detail.

What needs to be known is:

- *any/how much planning*
- *how much proactiveness*
- *how much reactiveness,*

so a decision on "reactive", "opportunistic", "complete planning", and "critical point planning" can be made

6.2.1. You have said:...(repeat the goals and subgoals that S has developed). How do you go about achieving this goal/ these goals? or How do you reach this goal? or How do you do it?

6.2.2. What have you already done to achieve this goal? (possibly ask this question twice; ask for examples)

6.2.3. How have you done this in the past?

Only if relevant

7. Anticipatory emotions

7.1. If you succeed in achieving your goal of (Goal No. 2), how intensely do you anticipate you will feel each of the following emotions? [*give participant Anticipatory Emotions Answer Sheet*]

7.1.1. Overall, how successful would you say you are at altering these emotions in order to reach your stated goal? [*give participant Anticipatory Emotions Answer Sheet*]

7.2. If you **do not succeed** in achieving your goal of (Goal No. 2), how intensely do you anticipate you will feel the following emotions? [*give participant Anticipatory Emotions Answer Sheet*]

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7.2.1. Overall, how successful would you say you are at altering these emotions in order to reach your stated goal? [*give participant Anticipatory Emotions Answer Sheet*]

8. Entrepreneurial Orientation

Learning Orientation

8.1. If you could start your business again, what would you do differently? (also important: concreteness, evidence of learning)

Autonomy Orientation

8.2. What would happen if somebody would pay you good money to take over your firm and would make you the manager of the firm. You would have an income equivalent to a CEOs/ at least the same as your current income. Would you accept it? Why?

Innovative Orientation

8.3. Do you plan to change your product-mix or service-mix in the next six months or year? In what way? If “no”, go to 6.4.

8.3.1. Why do you plan to change your product (or service) mix?

8.4. Since you started your business/company (if new) OR over the last two years (if in operation longer), did you have a good or creative or innovative idea with regard to your business? What was this idea? (repeat if no answer or **prompt**: *I mean an idea where you said to yourself: Yes, that was a really good idea- it helps my business.*).

8.4.1. Was this your own idea or did you get it from someone else? Where did you get it from?

9. Questionnaire

10. Permission for external evaluation

I'd also like to get the opinion of someone who knows you and you're business by asking them to complete a short one-page questionnaire (*show questionnaire to interviewee*). Would you mind if you I asked X / Can you suggest someone who would complete the following questionnaire about your business?

11. Closing Information

Thank you very much for your time and effort. As I mentioned at the beginning, all the information you have given to me today will be treated in the strictest confidence. If you would like to provide me with your contact details, I can send you a transcribed copy of this interview in case you want to review, amend or clarify any points.

Give Contact Details Form to Interviewee.

Have you any other questions or comments you would like to make?

Finally, I wish you the very best with all your future endeavours.

Entrepreneurial Goals Cards

GOAL

Show Innovativeness

GOAL

Improve Marketing Strategy

GOAL

Improve the way to produce
a Product/ Service

GOAL

Perform better than
Competitors

GOAL

Expansion

GOAL

Make More Profit

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*Anticipatory Emotions Answer Sheet
(for use during interview)*

Goal No. 1: _____

Participant: _____

If you **succeed** in achieving your goal of (Goal No. 1), how intensely do you anticipate you will feel each of the following emotions?

	Not at all				Very much
Excitement	1	2	3	4	5
Delight	1	2	3	4	5
Happiness	1	2	3	4	5
Gladness	1	2	3	4	5
Satisfaction	1	2	3	4	5
Pride	1	2	3	4	5
Self-assurance	1	2	3	4	5

If you **do not succeed** in achieving your goal of (Goal No. 1), how intensely do you anticipate you will feel the following emotions?

	Not at all				Very much
Anger	1	2	3	4	5
Frustration	1	2	3	4	5
Guilt	1	2	3	4	5
Shame	1	2	3	4	5
Sadness	1	2	3	4	5
Disappointment	1	2	3	4	5
Depression	1	2	3	4	5
Worry	1	2	3	4	5
Discomfort	1	2	3	4	5
Fear	1	2	3	4	5

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Goal No. 2: _____

Participant: _____

If you **succeed** in achieving your goal of (Goal No. 2), how intensely do you anticipate you will feel each of the following emotions?

	Not at all				Very much
Excitement	1	2	3	4	5
Delight	1	2	3	4	5
Happiness	1	2	3	4	5
Gladness	1	2	3	4	5
Satisfaction	1	2	3	4	5
Pride	1	2	3	4	5
Self-assurance	1	2	3	4	5

If you **do not succeed** in achieving your goal of (Goal No. 2), how intensely do you anticipate you will feel the following emotions?

	Not at all				Very much
Anger	1	2	3	4	5
Frustration	1	2	3	4	5
Guilt	1	2	3	4	5
Shame	1	2	3	4	5
Sadness	1	2	3	4	5
Disappointment	1	2	3	4	5
Depression	1	2	3	4	5
Worry	1	2	3	4	5
Discomfort	1	2	3	4	5
Fear	1	2	3	4	5

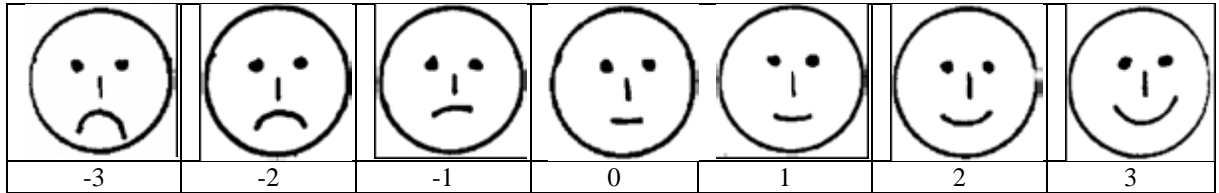
Appendix 7.4. Questionnaire

SECTION 1.

Please indicate the answer that best represents your opinion, by circling as appropriate.

	Not at all successful	Not that successful	Medium successful	Somewhat successful	Very successful
1. How successful are you as an entrepreneur compared to your competitors?	1	2	3	4	5
	Not at all satisfied	Not that satisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2. How satisfied are you with your work as an entrepreneur?	1	2	3	4	5

3. How satisfied are you with your current income?



4. In the following, please indicate on the scale provided, for each pair of statements of entrepreneurs, which of the following statements applies most to you.

(a) **Entrepreneur A:**
“I am satisfied as long as my business provides a living for my family and myself.”

Entrepreneur B:
“I am satisfied as long as my business keeps growing and becomes bigger.”

Exactly like A	More like A	More like B	Exactly like B
1	2	3	4

(b) **Entrepreneur A:**
“I just do this business as long as I cannot find another, better job.”

Entrepreneur B:
“I really like to be an entrepreneur on my own- I don’t want another job.”

Exactly like A	More like A	More like B	Exactly like B
1	2	3	4

(c) **Entrepreneur A:**
“If I earn enough money for my family, that is good enough.”

Entrepreneur B:
“I want my business to grow as much as possible.”

Exactly like A	More like A	More like B	Exactly like B
1	2	3	4

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(d) **Entrepreneur A:**
 “I am really interested in what I do now as an entrepreneur; I would not like to do anything else.”

Entrepreneur B:
 “I don’t care what exactly I work on as long as I earn money with it.”

Exactly like A	More like A	More like B	Exactly like B
1	2	3	4

The following questions relate to milestones which entrepreneurs typically go through in the first few years of setting up their business. Please answer yes or no to each question. If yes, please give further details as requested.

5. Has the company been officially incorporated?

Yes No

a. If yes, please indicate the date of official incorporation: _____

6. Have you developed a business plan in relation to your venture?

Yes No

a. If yes, has this business plan been evaluated by an external source (e.g. venture capitalist; potential partner etc.?)

Yes No

b. Source of Evaluation: _____

c. This evaluation was: _____

Very negative Somewhat negative Somewhat positive Very positive
 1 2 3 4

7. Has your venture been successful in acquiring follow-up financing?

Yes No

8. Has your company made its’ first sale?

Yes No

a. If yes, Please indicate the **time** from **official start-up** to when the **first sale** was made (in months): _____

9. Has your company reached break-even point?

Yes No

a. If yes, please indicate the **time** taken from **official start-up** to when the **break-even point** was reached (in months): _____

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10. At this point in time, please indicate the number of patents and trademarks that your business holds (if any):

11. If applicable, please indicate the number of employees currently working in your business?

a. If applicable, please indicate **how long** after the official start-up did you **employ your first employees** (in months):

SECTION 2a.

Please indicate the degree to which you agree with the statements below by circling as appropriate.

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1. I am not willing to take risks when choosing a work environment.	1	2	3	4	5
2. I prefer a low risk/ high security work environment with predictable income over a high risk and high reward environment.	1	2	3	4	5
3. I prefer to remain in an environment that has problems that I know about, rather than to take the risks of a new environment that has unknown problems, even if the new environment has greater rewards.	1	2	3	4	5
4. I view job-related risk as a situation to be avoided at all costs.	1	2	3	4	5
5. I actively approach problems	1	2	3	4	5
6. Whenever something goes wrong, I search for a solution immediately.	1	2	3	4	5
7. Whenever there is a chance to get actively involved, I take it.	1	2	3	4	5
8. I take initiative immediately even when others don't.	1	2	3	4	5
9. I use opportunities quickly in order to attain my goals.	1	2	3	4	5
10. Usually, I do more than I am asked to do.	1	2	3	4	5
11. I am particularly good at realising ideas.	1	2	3	4	5

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SECTION 2b.

Please indicate the degree to which you agree with the statements below by circling as appropriate.

In dealing with its competitors, my enterprise:

Typically responds to actions which competitors initiate	1	2	3	4	5	Typically initiates action which competitors then respond to
Is very seldom the first business to introduce new products/services, administrative techniques, operating technologies etc.	1	2	3	4	5	Is very often the first business to introduce new products/services, administrative techniques, operating technologies etc.
Typically seeks to avoid competitive clashes, preferring a 'live and let live' posture	1	2	3	4	5	Typically adopts a very competitive, 'undo-the-competitors' posture

SECTION 3.

Please indicate the degree to which you agree with the statements below by circling as appropriate.

How capable do you believe you are in performing each of the following tasks?

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1. I can work productively under continuous stress, pressure and conflict.	1	2	3	4	5
2. I can develop and maintain favourable relationships with potential investors.	1	2	3	4	5
3. I can see new market opportunities for new products and services.	1	2	3	4	5
4. I can recruit and train key employees	1	2	3	4	5
5. I can articulate vision and values of the organisation.	1	2	3	4	5
6. I can discover new ways to improve existing products.	1	2	3	4	5
7. I can develop relationships with key people who are connected to capital sources.	1	2	3	4	5
8. I can identify new areas for potential growth.	1	2	3	4	5
9. I can develop contingency plans to backfill key technical staff.	1	2	3	4	5

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	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
10. I can inspire others to embrace vision and values of the company.	1	2	3	4	5
11. I can tolerate unexpected changes in business conditions.	1	2	3	4	5
12. I can design products that solve current problems.	1	2	3	4	5
13. I can identify potential sources of funding for investment.	1	2	3	4	5
14. I can create a working environment that lets people be their own boss.	1	2	3	4	5
15. I can persist in the face of adversity.	1	2	3	4	5
16. I can create products that fulfil customers' unmet needs.	1	2	3	4	5
17. I can formulate a set of actions in pursuit of opportunities.	1	2	3	4	5
18. I can develop a working environment that encourages people to try out something new.	1	2	3	4	5
19. I can bring product concepts to market in a timely manner.	1	2	3	4	5
20. I can determine what the business will look like.	1	2	3	4	5
21. I can encourage people to take initiatives and responsibilities for their ideas and decisions, regardless of outcomes.	1	2	3	4	5
22. I can identify and build management teams.	1	2	3	4	5
23. I can form partner or alliance relationship with others.	1	2	3	4	5
24. I feel that I am good at generating novel ideas.	1	2	3	4	5
25. I have confidence in my ability to solve problems creatively.	1	2	3	4	5
26. I have a knack for further developing the ideas of others.	1	2	3	4	5

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SECTION 4.

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, circle the '0' (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

	Never	Almost Never/ A few times a year or less	Rarely Once a month or less	Sometimes A few times a month	Often Once a week	Very Often A few times a week	Always Everyday
1. At my work I feel bursting with energy.	0	1	2	3	4	5	6
2. I find the work that I do full of meaning and purpose	0	1	2	3	4	5	6
3. Time flies when I'm working	0	1	2	3	4	5	6
4. At my job, I feel strong and vigorous	0	1	2	3	4	5	6
5. I am enthusiastic about my job	0	1	2	3	4	5	6
6. When I am working, I forget everything else around me	0	1	2	3	4	5	6
7. My job inspires me	0	1	2	3	4	5	6
8. When I get up in the morning, I feel like going to work	0	1	2	3	4	5	6
9. I feel happy when I am working intensely	0	1	2	3	4	5	6
10. I am proud of the work that I do	0	1	2	3	4	5	6
11. I am immersed in my work	0	1	2	3	4	5	6
12. I can continue working for very long periods at a time	0	1	2	3	4	5	6
13. To me, my job is challenging	0	1	2	3	4	5	6
14. I get carried away when I'm working	0	1	2	3	4	5	6

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	Never	Almost Never/ A few times a year or less	Rarely Once a month or less	Sometimes A few times a month	Often Once a week	Very Often A few times a week	Always Everyday
15. At my job, I am very resilient, mentally	0	1	2	3	4	5	6
16. It is difficult to detach myself from my job	0	1	2	3	4	5	6
17. At my work I always persevere, even when things do not go well	0	1	2	3	4	5	6

SECTION 5.

*In this section, we are interested in how people respond when they confront difficult or stressful events in the setting up of a business. There are lots of ways to try to deal with stress. This section asks you to indicate what **YOU** have been doing, when **YOU** have experienced stressful events since beginning the process of starting your business. Obviously, different events bring out somewhat different responses, but think about what you **have been doing** when you are under a lot of stress.*

*Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true **FOR YOU** as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for **YOU**--not what you think "most people" would say or do. Indicate what **YOU** have been doing when **YOU** have experienced a stressful event associated with your venture.*

	I haven't done this at all	I have done this a bit	I have done this a medium amount	I have done this a lot
1. I concentrate my efforts on doing something about it.	1	2	3	4
2. I make a plan of action.	1	2	3	4
3. I keep myself from getting distracted by other thoughts or activities.	1	2	3	4
4. I restrain myself from doing anything too quickly.	1	2	3	4
5. I try to get advice from someone about what to do.	1	2	3	4
6. I take additional action to try to get rid of the problem.	1	2	3	4
7. I try to come up with a strategy about what to do.	1	2	3	4
8. I focus on dealing with this problem, and if necessary let other things slide a little.	1	2	3	4

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	I haven't done this at all	I have done this a bit	I have done this a medium amount	I have done this a lot
9. I hold off doing anything about it until the situation permits.	1	2	3	4
10. I talk to someone to find out more about the situation.	1	2	3	4
11. I take direct action to get around the problem.	1	2	3	4
12. I think about how I might best handle the problem.	1	2	3	4
13. I try hard to prevent other things from interfering with my efforts at dealing with this.	1	2	3	4
14. I make sure not to make matters worse by acting too soon.	1	2	3	4
15. I talk to someone who could do something concrete about the problem.	1	2	3	4
16. I do what has to be done, one step at a time.	1	2	3	4
17. I think hard about what steps to take.	1	2	3	4
18. I put aside other activities in order to concentrate on this.	1	2	3	4
19. I force myself to wait for the right time to do something.	1	2	3	4
20. I ask people who have had similar experiences what they did.	1	2	3	4

SECTION 6.

In this section, we are interested in how you control emotions associated with tasks that you need to do in order to ensure the success of your business. Please indicate the degree to which you agree with the statements below by circling as appropriate.

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1. I control my emotions by changing the way I think about the situation I'm in.	1	2	3	4	5
2. I control my emotions by not expressing them.	1	2	3	4	5
3. When I want to feel less negative emotion, I change the way I'm thinking about the situation.	1	2	3	4	5
4. When I am feeling negative emotions, I make sure not to express them.	1	2	3	4	5

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	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
5. When I want to feel more positive emotion, I change the way I'm thinking about the situation.	1	2	3	4	5
6. I keep my emotions to myself.	1	2	3	4	5
7. When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.	1	2	3	4	5
8. When I am feeling positive emotions, I am careful not to express them.	1	2	3	4	5
9. When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.	1	2	3	4	5
10. When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.	1	2	3	4	5

SECTION 7.

1. What is your age? _____

2. Are you: Male Female
(Please circle as appropriate)

3. Have you friends or relatives that are or have been entrepreneurs? (Please indicate the number of each)

Friends _____ Relatives _____

4. In the space provided below, please give details of your main areas of work experience which have helped you in setting up your business:

Job Title	Type of Industry	Approx. Length of Time Employed
<hr/>		

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5. In the space provided below, please list any third level qualifications which you have obtained or are currently studying for:

Type of Qualification (e.g. B.A., M.A. etc.)	Subject Area	Year Conferred
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

6. In the space provided below, please list any job-related training which you have undergone which has helped you in setting up your business:

Subject Area	Type of Training (in-house, course etc.)	Duration (days/months/years)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Appendix 7.5. External Evaluation Questionnaire

Participant:

Date:

Name of Evaluator:

1. How successful do you think the person in question is as an entrepreneur in comparison with his/her competitors?

Belongs to the less successful half of entrepreneurs	Belongs to the more successful half of entrepreneurs	Belongs to the upper 25% of successful entrepreneurs	Belongs to the 10% most successful entrepreneurs	Most successful entrepreneur
1	2	3	4	5

2. How successful do you think the person in question is as an entrepreneur in comparison with his/her competitors?

Not at all successful	Not that successful	Average success	Somewhat successful	Very successful
1	2	3	4	5

3. What is your relationship to the person/entrepreneur in question?

- a) () I am an employee of Enterprise Ireland
- b) () I am an employee of a County Enterprise Board
- c) () I am the director/manager of an Entrepreneur Support Service
- d) () I am an employee of a Business Innovation Centre
- e) () Other- Please Specify _____

4. How long do you know each other? Please give an approximation of months and years.

Appendix 7.6. Informed Consent Form

I. Research Study Title

An investigation into the self-regulation processes of entrepreneurs

Principal Investigator: Deirdre O'Shea, DCU Business School, Dublin City University

Supervisor: Dr. Finian Buckley, DCU Business School, Dublin City University.

II. Clarification of the purpose of the research

This research investigates the management of the self in the process of starting a venture. It proposes a model which relates self-regulation to both psychological and external success factors in entrepreneurs. The main research questions are:

1. What are the goals that early stage entrepreneurs and new business owners set for themselves?
2. How do entrepreneurs manage cognition, emotion and motivation in starting a venture?
3. Does this management relate to performance or success in entrepreneurial ventures?

III. Confirmation of particular requirements as highlighted in the Plain Language Statement

Participant – please complete the following (Circle Yes or No for each question)

Do you understand the information provided? Yes/No

Are you aware that your interview will be audiotaped? Yes/No

Have you had an opportunity to ask questions and discuss this study? Yes/No

Have you received satisfactory answers to all your questions? Yes/No

IV. Confirmation that involvement in the Research Study is voluntary

- Consenting to take part in this research is *voluntary and you can withdraw at any time.*
- Any information provided will be considered private and *treated confidentially.*
- This research is guided by **the Code of Ethics** devised by the **Psychological Society of Ireland**

V. Advice as to arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations

Throughout the research, data will be stored on a password protected personal computer. Following completion of the research, all data will be destroyed.

VII. Signature:

I have read and understood the information in this form. My questions and concerns have been answered by the researchers. Therefore, I consent to take part in this research project

Participants Signature: _____

Name in Block Capitals: _____

Witness: _____

Date: _____

Appendix 7.7. Coding Scheme for Interview data

Goals

(i) Achievement Goal Orientation (DeShon & Gillespie, 2005; Schmidt, Dolis & Tolli, 2009)

Mastery Approach Goal

- Statements of sub-goals that emphasise a focus on developing one's competence, the desire to learn from the experience of setting up the venture, a desire to master what was necessary in order to make the venture a success, or similar.
- Such an approach may be evidenced by individual seeking out situations where gaps exist between their goals and their performance, as they provide opportunities for growth and improvement
- May be indicated by statements such as references to "being out of my comfort zone"; "pushing myself" etc.
- Such individuals also believe that challenges can be overcome through effort, so statements relating to increasing effort to achieve a goal may also indicate a mastery orientation.

Performance Approach Goal

- Statements of sub-goals that emphasise desires to perform better than competitors, develop a product that was better than anything currently on the market, or similar. The focus is on demonstrating competence to oneself and/or others.
- May be indicated by a focus on both needing achievement and fear of failure

Performance Avoid Goal

- Statements of sub-goals that emphasise avoiding failure, demonstrations of incompetence, or not wishing to do poorly in relation to a principle goal.
- Such individuals are frequently threatened by and shy away from indications of struggle or potential failure.
- May also refer statements that emphasise avoiding a context, situation, state of affairs etc.

Step 1:

Goal 1

- # mastery approach subgoals
- # performance approach subgoals
- # performance avoid subgoals

Goal 2:

- # mastery approach subgoals
- # performance approach subgoals
- # performance avoid subgoals

Step 2: Ratings by Goal Orientation type

Mastery Approach Achievement Goal Orientation

Score for Goal 1 + Score for Goal 2

Performance Approach Achievement Goal Orientation

Score for Goal 1 + Score for Goal 2

Performance Avoid Achievement Goal Orientation

Score for Goal 1 + Score for Goal 2

(ii) Goal Difficulty

Difficulty of participants' goals (assessed by the participants and raters) (Kraus, 2003)

Very Difficult (5)

- very difficult with lots of effort necessary to reach, given the situation the participant is in.
- may be significant obstacles, hurdles or problems which the participant must overcome or solve in order to reach the goal, for which the solution is not necessarily immediately obvious.

Difficult (4)

- a reasonable amount of effort necessary to reach the goal, given the situation the participant is in.

Neither difficult nor easy (3)

- some effort, but not a huge amount, necessary to reach the goal, given the situation that the participant is in.
- some obstacles or problems may be evident, but they should not pose a significant challenge to overcome.

Easy (2)

- little effort necessary to reach the goal, given the situation the participant is in.

Very Easy (1)

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- very little, or no, effort necessary to reach the goal, given the situation the participant is in.
- no major obstacles or problems to overcome.

Goal difficulty scale:

- Goal difficulty (goal 1) subject's estimate
- Goal difficulty (goal 2) subject's estimate
- Goal difficulty (goal 1) raters estimate
- Goal difficulty (goal 2) raters estimate

(iii) Goal-Specificity

High Specificity (5)

- Goals that incorporate specific performance standards such as discrete values or time-linked progression stages
- Explicit and detailed through the use of targets and quotas (Steers & Porter, 1974)

High-moderate Specificity (4)

- Some evidence of specific performance standards, but may not be present for all goals

Moderate Specificity (3)

- An indication of goals/aims, but clear progression stages may not be clarified in any great depth

Low-moderate Specificity (2)

- Reasonably vague goals, with little indication of targets, progression stages etc.

Non-specific/low specificity (1)

- Vague goals with few or no substeps
- Implicit and largely unspecified quantitatively or qualitatively (Steers & Porter, 1974)

Planning (Frese et al., 2007)

Planning refers to the development of specific alternative behavioural paths by which a goal can be attained, or in other words, a plan is a strategy (Austin & Vancouver, 1996), but may be a simple list of subgoals. In the psychological sense, a plan means that one has some kind of order of operation for the next few seconds, minutes, months or years (Frese, 2007) and can mean everything from the first idea of how to proceed to an elaborated blueprint (Frese & Zapf, 1994).

Planning is assessed along two dimensions: (i) elaborateness and (ii) proactiveness.

Elaborate Plan:

- Detail of plan
 - Goal specificity
- Number of substeps identified
 - Identify the number of subgoals
- Taking steps towards implementing certain substeps.
- past actions in similar areas
 - see goal-directed behaviour

Highly Elaborate (5)

- include at least 3 substeps
- first actions or preparations towards accomplishing at least one of the substeps has already been done.

Moderately Elaborate (3)

- included a plan for one issue of substep in more detail
- if owner had done the first actions or preparations towards accomplishing the substep.

Low in Elaborateness (1)

- no mention of a plan
- only an abstract plan was revealed that did not include concrete substeps, or no concrete action had been taken to accomplish any of the plan's substeps

Proactiveness of a plan:

1. produces change and is not a copy of others in the relevant environment
2. includes unusual ideas or buying supplies, production or marketing
3. contains thoughts about future problems and opportunities and prepares for these problems and opportunities now and thus is not waiting to see what happens

High proactiveness (5)

- when the thoughts of the participants included at least two of these components.

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Moderately proactive (3)

- some evidence of considering the components above, but may not be strong in these areas (e.g. may recognise a future problem, but not have considered ways to combat it).

Low proactiveness (1)

- waiting for things to come
- copying what others did
- not expecting future problems or opportunities and not preparing for them.

Combining ratings for planning

- Questions and coding of plan characteristics were done for the two most important goal areas.
- Result:
 - *Elaborate Planning Index*
 - *Proactive Planning Index*
- The Elaborate Planning and Proactive Planning scale
 - Goal 1: elaborate planning
 - Goal 2: elaborate planning
 - Goal 1: proactive planning
 - Goal 2: proactive planning

Goal-directed behaviour

Relates to (i) actions in the past; i.e. to actions that have already been taken by the participant, or (ii) to intended actions which are already planned out.

High Activity (5)

- Actions taken in relation to all sub-goals

Somewhat high activity (4)

- Actions taken towards a number of sub-goals with plans in place to take other steps.

Moderate Activity (3)

- Actions identified for all sub-goals, but steps towards achieving these actions may not as yet have been taken

Moderate/Low activity

- Actions may have been identified for some (but not all) sub-goals, but steps towards achieving these actions may not as yet have been taken.

Low Activity (1)

- No steps taken in relation to sub-goals
- No intentions to take action in the near future

No Activity (0)

- No actions taken in relation to sub-goals, with no plan/strategy, or no intention to take action.

Combining rating for goal-directed behaviour

- Actions in the past- Goal 1
- Actions in the past- Goal 2

Entrepreneurial Orientation: Qualitative measures

Three components of entrepreneurial orientation were assessed through interview: (i) Learning Orientation, (ii) Autonomy Orientation and (iii) Innovative Orientation.

(i) Learning Orientation

Willingness to learn from experience and foster personal development on that basis (Kraus, 2003)

Scale

- Learning Orientation (Interviewer evaluation) (1-5)
- Evidence of learning from experience (1-5)

Learning Orientation: Interviewer Evaluation

High Learning Orientation (5)

- Participant demonstrates a strong desire to learn from experience and engage in relevant personal development activities, and shows evidence of having done this.

Moderate Learning Orientation (3)

- Participant recognises areas where they may need to learn more or engage in personal development activities, but may not have set plans to engage in such as yet.

Low Learning Orientation (1)

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- Participant does not demonstrate a strong desire to learn from experience and engage in relevant development activities.
- Shows little or no evidence of engaging in any such activities.

Evidence of Learning from Experience

High (5)

- Participant shows evidence of actively approaching a situation, either with an explicit intention to learn and/or demonstrating evidence of reflecting on the experience, learning from mistakes, or attempting to improve in the future.
- Participants who may not wish to change much, but may demonstrate evidence of having planned and monitored their actions in order to ensure that no grievous errors were made.

Moderate (3)

- Participant may show some evidence of recognising that the experience was one in which they learned, but may not strongly demonstrate evidence of reflection, learning from mistakes, or changing their behaviour in future as a result of the experience.

Low (1)

- Participant demonstrates little or no evidence of reflecting on past actions, or considering how they could have been achieved more effectively. Little evidence of changing their behaviour as a result of past experience.

(ii) Autonomy Orientation

The individual's preference for self-employment (Kraus, 2003)

Disliking of hierarchical authority and need for autonomous action. The desire to express one's individuality in the workplace, to disliking superior's orders and the refusal of being just a cog in an organisational machine (Kraus, 2003).

Scale

- Shows autonomy orientation (1-5)
- Autonomous orientation (interviewer evaluation) (1-5)

Evidence of Autonomy Orientation (more proximal)

High Evidence of Autonomy Orientation (5)

- high motivation demonstrated with regard to realising one's own ideas and visions for the business.

Moderate Evidence of Autonomy Orientation (3)

- Moderate motivation with regard to realising one's own ideas and visions for the business

Low Evidence of Autonomy Orientation (1)

- Low motivation shown with regard to realising one's own ideas and visions for the business.

Autonomous Orientation (Interviewer Evaluation) (more distal)

Highly autonomous (5)

- Participant has a high desire to express his/her individuality in the workplace, dislikes superior's orders and would refuse to be a cog in the organisational wheel
- Would not return to full-time employment, and would not be happy to pass the running of the company to someone else

Moderately autonomous (3)

- Participant would prefer to be able to express his/her individuality in the workplace, but is willing to operate in workplaces where this is not possible. He/she does not mind taking orders from superiors, but equally will work to their own schedule/goals where possible.
- Would not relish the prospect of returning to full-time employment, but if necessary would do it.

Low autonomy (1)

- Participant does not have a strong desire to express his/her individuality in the workplace, does not feel strongly about taking orders from superior's and does not have a problem being a cog in the organisational wheel
- Would return to full-time employment, would be happy to pass the running of the company to someone else.

(iii) Innovative Orientation

- Positive attitude towards innovation (Kraus, 2003)
- Innovativeness: Participants innovativeness in developing new business ideas and competitive advantages

Innovative Orientation Scale:

- Innovativeness of change (1-5)
- Innovativeness of business idea (1-5)

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- Innovativeness (interviewer evaluation) (1-5)

Innovativeness (of change and/or business idea)

High innovativeness (5)

- Concept is new or novel-
 - it may refer to the development of a brand new product/service, but may also be novel with regard to the context that it is being utilised in (e.g. the adaptation of something from a different context)
 - It may refer to ideas or changes that radically changed the thought processes of the individual
- a change or idea that is novel, appropriate, useful, and actionable, and is also successfully implemented (Amabile, 1997)

Moderate innovativeness (3)

- May demonstrate novelty as defined above, but the utility may be limited, or at least not explicitly evidence
- Or, maybe have clear utility but be a copy of something others are already engaged in

Low innovativeness (1)

- Little evidence of novelty or utility

Innovativeness (Interviewer evaluation)

High innovative orientation (5)

- Participant displays a very positive attitude towards innovation and places a constant emphasis/effort on being innovative

Moderate innovative orientation (3)

- Participant may hold quite a positive attitude towards innovation, but it may not be a big focus of their work

Low innovative orientation (1)

- Participant does not display an attitude towards innovation, and/or does not attempt to be innovative in their work.

•

Success/ Goal achievement

1. Objective Measure of Success:

Success Milestones: Questionnaire Section 1 Questions 5-11

<i>Milestone</i>	<i>Answer</i>	<i>Code</i>
1. officially incorporated?	Yes	1
	No	0
2. business plan developed?	Yes	1
	No	0
3. success in acquiring follow-up financing?	Didn't need follow-up financing	1
	Yes	1
	No	0
4. company made first sale?	Yes	1
	No	0
5. company reached break-even point?	Yes	1
	No	0
6. patents and trademarks?	Yes	1
	No	0
7. employees?	Yes	1
	No	0
Total (7)		

2. External Evaluation of success

Total score for 2 items: Questions 1 + 2 on External Evaluation Form

3. Personal Perception of Success

Total score for 3 items: Questionnaire Section 1 Questions 1-3

Appendix 7.8. Autocoded Transcript Headings

Sector

Motivation for starting venture

Goal Ratings

Goal Number 1

Goal 1- Difficulty

Competencies- Goal 1

Emotions- Goal 1

Motivation- Goal 1

Goal Number 2

Goal Difficulty- Goal 2

Competencies- Goal 2

Emotions Goal 2

Motivation- Goal 2

Learning Orientation

Autonomy Orientation

Innovative Orientation

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Appendix 7.9. Missing Data Analysis

Table A7.9.i Missing data analysis for dataset N = 75

	Missing		Valid
	N	%	N
Objective Success			
(Success Milestone) 1.7. Has your venture been successful in acquiring follow-up financing?	12	16.0	63
(Success Milestone) 1.6. Have you developed a business plan in relation to your venture?	11	14.7	64
Self-Perceptions of Success			
(Self-perception of success) 1.1. How successful are you as an entrepreneur compared to your competitors?	1	1.3	74
Entrepreneurial Orientations			
Learning Orientation (Total)	4	5.3	71
LO2. Evidence of Learning Orientation	4	5.3	71
LO1. Learning Orientation Interviewer evaluation	4	5.3	71
Achievement orientation	2	2.7	73
Competitive Aggressiveness Orientation (total)	2	2.7	73
(Competitive Aggressiveness) 2b.3. seeks to avoid competitive clashes/ adopts a very competitive undo-the-competitor posture	2	2.7	73
(Competitive Aggressiveness) 2b.2. very seldom the first business to introduce new ../ very often the first business to introduce new...	2	2.7	73
(Competitive Aggressiveness) 2b.1. responds to actions competitors initiate/ initiates actions competitors respond to	2	2.7	73
(Achievement orientation) 1.4a. A. my business provides a living for my family and myself/ B. my business keeps growing and becomes bigger			
(Achievement orientation) 1.4c. A. If I earn enough money for my family, that is good enough/ B. I want my business to grow as much as possible.	1	1.3	74
Work Engagement			
Absorption total (Work engagement)	2	2.7	73
Dedication total (Work engagement)	2	2.7	73
Vigor total (Work engagement)	3	4.0	72
(Absorption) 4.6. When I am working, I forget everything else around me.	2	2.7	73
(Dedication) 4.5. I am enthusiastic about my job.	2	2.7	73
(Vigor) 4.4. At my job, I feel strong and vigorous.	2	2.7	73
(Absorption) 4.3. Time flies when I'm working.	2	2.7	73
(Dedication) 4.2. I find that work that I do full of purpose and meaning.	2	2.7	73
(Vigor) 4.1. At my work I feel bursting with energy.	2	2.7	73
(Vigor) 4.8. When I get up in the morning, I feel like going to work.	1	1.3	74
Goals			
Goal 2 Proactiveness of plan	1	1.3	74
Goal 2 Elaborateness of plan	1	1.3	74
Goal 2 Actions towards substeps	1	1.3	74
Goal 2 Goal Specificity	1	1.3	74
Goal 2 Difficulty Rating (Interviewer)	2	2.7	73
Goal 2 Difficulty Rating (Subject)	2	2.7	73
Goal 2 Performance Avoid Goal orientation (# goals)	1	1.3	74
Goal 2 Performance Approach Goal orientation (# goals)	1	1.3	74
Goal 2 Mastery Approach Goal orientation (# goals)	1	1.3	74
Entrepreneurial Self-Efficacy			
ESE6 Developing Critical Human Resources	1	1.3	74
ESE2 Building an innovative environment	1	1.3	74
(ESE) 3.14 I can create a working environment that lets people be their own boss.	1	1.3	74
(ESE) 3.9. I can develop contingency plans to backfill key technical staff.	1	1.3	74

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Table A7.9.ii Results of mean replacement at the item level for dataset N = 75

Item	# missing values	Original Mean	Original SD	New Mean	New SD	Sd _{orig.} - Sd _{new}
(Self-perception of success 1) 1.1. How successful are you as an entrepreneur compared to your competitors?	1	3.527	0.940	3.527	0.933	0.006
(Achievement orientation 1) 1.4a. A. my business provides a living for my family and myself/ B. my business keeps growing and becomes bigger	2	2.822	0.962	2.822	0.949	0.013
(Entre Motivation 1) 1.4b. A. I just do this business as long as I cannot find another, better job/ B. I really like to be an entrepreneur on my own- I don't want another job	1	3.730	0.477	3.730	0.474	0.003
(Achievement orientation 2) 1.4c. A. If I earn enough money for my family, that is good enough/ B. I want my business to grow as much as possible.	1	3.189	0.839	3.189	0.833	0.006
(Competitive Aggressiveness 1) 2b.1. responds to actions competitors initiate/ initiates actions competitors respond to	2	3.644	0.963	3.644	0.950	0.013
(Competitive Aggressiveness 2) 2b.2. very seldom the first business to introduce new ./ very often the first business to introduce new...	2	3.877	1.105	3.877	1.090	0.015
(Competitive Aggressiveness 3) 2b.3. seeks to avoid competitive clashes/ adopts a very competitive undo-the-competitor posture	2	3.260	1.131	3.260	1.115	0.015
(ESE) 3.9. I can develop contingency plans to backfill key technical staff.	1	3.473	0.895	3.473	0.889	0.006
(ESE) 3.14 I can create a working environment that lets people be their own boss.	1	3.919	0.807	3.919	0.801	0.005
(VI1) 4.1. At my work I feel bursting with energy.	1	4.685	0.780	4.685	0.769	0.011
(DE1) 4.2. I find that work that I do full of purpose and meaning.	2	4.767	1.112	4.767	1.097	0.015
(AB1) 4.3. Time flies when I'm working.	2	5.425	0.686	5.425	0.676	0.009
(VI2) 4.4. At my job, I feel strong and vigorous.	2	4.685	0.848	4.685	0.836	0.012
(DE2) 4.5. I am enthusiastic about my job.	2	5.260	0.708	5.260	0.698	0.010
(AB2) 4.6. When I am working, I forget everything else around me.	2	4.753	1.382	4.753	1.363	0.019
(VI3) 4.8. When I get up in the morning, I feel like going to work.	1	5.162	0.828	5.162	0.822	0.006
LO1. Learning Orientation Interviewer evaluation	4	3.493	1.194	3.493	1.161	0.033
LO2. Evidence of Learning Orientation	4	3.606	1.140	3.606	1.109	0.031
Goal 2 Difficulty Rating (Subject)	2	3.288	1.060	3.288	1.046	0.014
Goal 2 Difficulty Rating (Interviewer)	2	3.356	1.046	3.356	1.032	0.014
Goal 2 Goal Specificity (Elab. Plan 1)	1	3.068	1.317	3.068	1.308	0.009
Goal 2 Actions towards substeps (Elab. Plan 3)	1	3.378	1.257	3.378	1.249	0.009
Goal 2 Elaborateness of plan	1	3.014	1.266	3.014	1.257	0.009
Goal 2 Proactiveness of plan	1	3.230	1.420	3.230	1.410	0.010

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Table A7.9.iii Missing data analysis for dataset N = 64

	Missing		Valid
	N	%	N
Coping Strategies			
(Active Cope3) 5.11. I take direct action to get around the problem.	2	3.1	62
(Plan4) 5.17. I think hard about what steps to take.	1	1.6	63
Reappraisal			
(Reappraisal 6) 6.10. When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.	2	3.1	62
Goal 1 Positive Emotions			
G1 Gladness	2	3.1	62
Goal 1 Negative Emotions			
G1 Guilt	2	3.1	62
G1 Shame	2	3.1	62
G1 Shame	1	1.6	63
G1 Sadness	1	1.6	63
G1 Depression	1	1.6	63
G2 Positive Emotions			
G2 Excitement	12	18.8	52
G2 Delight	12	18.8	52
G2 Happiness	12	18.8	52
G2 Gladness	12	18.8	52
G2 Satisfaction	12	18.8	52
G2 Pride	13	20.3	51
G2 Self-Assurance	12	18.8	52
Goal 2 Negative Emotions			
G2 Anger	13	20.3	51
G2 Frustration	13	20.3	51
G2 Guilt	13	20.3	51
G2 Shame	13	20.3	51
G2 Sadness	13	20.3	51
G2 Disappointment	13	20.3	51
G2 Depression	14	21.9	50
G2 Worry	13	20.3	51
G2 Discomfort	13	20.3	51
G2 Fear	13	20.3	51

Table A7.9.iv Results of mean replacement at the item level for dataset N = 64

Item	# missing values	Original Mean	Original SD	New Mean	New SD	Sd _{orig.} - Sd _{new}
Gladness (G1 + G2)	1	4.06	.843	4.06	.836	.007
Depression (G1 + G2)	1	2.00	1.11	2.00	1.10	.010
(Active Cope3) 5.11. I take direct action to get around the problem.	2	3.08	.731	3.08	.719	.012
(Plan4) 5.17. I think hard about what steps to take.	1	3.38	.607	3.38	.602	.005
(Reappraisal 6) 6.10. When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.	2	4.00	.724	4.00	.713	.011

APPENDICES PERTAINING TO CHAPTER 8

Appendix 8.1: Assessment of the model of the direct effect of goal orientation on external success.

Table A8.1.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). All of the measurement components for the external success measure met the minimum requirements. However, each of the goal orientations measures proved somewhat problematic. The AVEs were at or just below the 0.5 criteria, but the composite reliability scores were between .5 and .6, and the factor loadings for one of the indicators in each goal orientation was low. The Fornell-Larker criterion was met, with the square root of the AVE being higher than the correlations between the variables (see Table A8.1.ii), which provides evidence for convergent and discriminant validity. However, the crossloadings were somewhat problematic also.

The problematic measurement results for goal orientations in this model, compared to the direct effect model examining objective success and subjective perceptions of success may be due to a number of reasons. Firstly, the PLS algorithm iterates between the measurement model and structural model in making its path estimations, and hence, the differential results of the two goals could be indicative of the participants using varying goal orientations for different types of goals. Secondly, the sample size is reduced in this model, and this may be introducing bias into the results.

Table A8.1.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (goal orientation & external success).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Mastery Approach	G1MAGO	0.147	-0.284	.542	.477
	G2MAGO	0.966	1.079		
Performance Approach	G1PAGO	0.029	-0.029	.514	.500
	G2PAGO	0.999	1.001		
Performance Avoid	G1PAvGO	0.224	0.224	.590	.500
	G2PAvGO	0.975	0.975		
External Success	ExtS1	0.900	0.557	.895	.809
	ExtS2	0.899	0.555		

Table A8.1.ii. Average Variance Extracted and correlations between constructs (goal orientation & external success).

	1	2	3	4
External Success	0.900			
Mastery Approach	-0.2377	0.691		
Performance Approach	0.2318	-0.3845	0.707	
Performance Avoid	-0.1234	-0.0414	-0.1268	0.707

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A8.1.iii. Cross-loadings for measurement model (goal orientation & external success).

	External Success	Mastery Approach	Performance Approach	Performance Avoid
ExtS1	0.900	-0.188	0.206	-0.158
ExtS2	0.899	-0.240	0.211	-0.064
G1MAGO	0.054	0.147	-0.057	0.005
G2MAGO	-0.206	0.966	-0.371	-0.037
G1PAGO	-0.007	0.029	0.029	-0.157
G2PAGO	0.231	-0.383	0.999	-0.131
G1PAvGO	-0.028	-0.090	0.045	0.224
G2PAvGO	-0.120	-0.022	-0.141	0.975

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The results of the measurement model urge caution in the analysis of the structural model. However, given that the purpose in examining this model is to provide added support from an external source for the results already found in relation to the objective indicators of success and the entrepreneurs own self-perceptions of success, there is merit in examining the direct effects of goal orientations on external success. Table 8.1.iv outlines the R^2 and Q^2 estimations for the inner model. The R^2 estimations suggest that in total, 8.2% of the variance in the external rating of success was explained by the goal orientation of the individual, which represents a small-medium effect size. To calculate the predictive relevance of each of the LVs, the blindfolding procedure was performed, with the omission distance set to 7. The Q^2 cross validated commonality was above zero, but the cross-validated redundancy was below zero, suggesting that there may be issues with the predictive relevance of the model. Furthermore, none of the path coefficients were found to be statistically significant. However, estimation of the effect sizes suggests that both mastery approach and performance approach have small effects on external success, which may be suggesting that the model (due to the reduced sample size), may not have sufficient statistical power to detect significant results (see Table A8.1.v).

Table A8.1.iv. Estimation of the structural model (goal orientation, and external success).

	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
External Success	0.092	Small	.483	-0.717

Table A8.1.v. Statistical results for Path Coefficients (goal orientation and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Mastery Approach → External Success	-0.186	0.823	.226	.226	-.628; .256	0.031	Small
Performance Approach → External Success	0.146	0.841	.174	.174	-.195; .487	0.020	Small
Performance Avoid → External Success	-0.113	0.621	.181	.181	-.468; .242	0.012	Negligible

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
 where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval (Hinkle, Wiersma & Jurs, 1998)

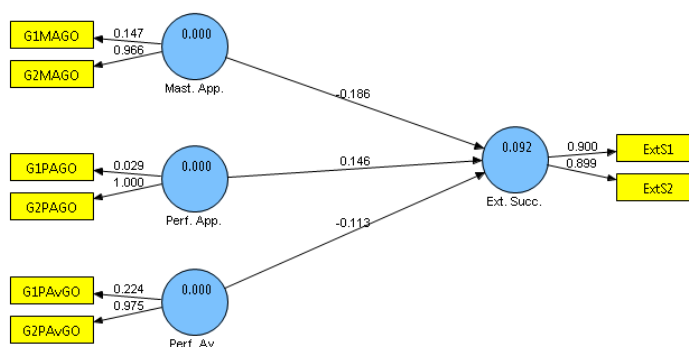


Figure A8.1.ii. Original PLS output for the model examining the direct effects of goal orientations on external success

Appendix 8.2: Model investigating the direct effects of goal orientations on objective success and self-perceptions of success.

Table A8.2.i Factor loadings, weights, composite scale reliability, and AVE to assess the reliability of constructs (goal orientations, objective success, and self-perceptions of success).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Mastery Approach	G1MAGO	0.720	0.454	0.800	0.669
	G2MAGO	0.906	0.743		
Performance Approach	G1PAGO	0.628	0.590	0.684	0.524
	G2PAGO	0.808	0.779		
Performance Avoid	G1PAvGO	0.881	0.843	0.110	0.536
	G2PAvGO	-0.543	-0.475		
Objective Success	ObjSucc	1.00	1.00	1.00	1.00
Self-Perceptions of Success	SelfSucc1	0.877	0.569	0.826	0.615
	SelfSucc2	0.769	0.363		
	SelfSucc3	0.697	0.318		

Table A8.2.ii Average variance extracted (AVE) and correlations between constructs (goal orientation, objective success, and self-perceptions of success).

	1	2	3	4	5
1. Mastery Approach	0.818				
2. Objective Success	-0.331	1.00			
3. Performance Approach	-0.209	0.127	0.724		
4. Performance Avoid	-0.052	-0.078	-0.031	0.732	
5. Self Perceptions of success	-0.233	0.311	0.225	-0.245	0.784

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A8.2.iii. Cross-loadings for measurement model (goal orientation, objective success and self-perceptions of success).

	Mastery Approach	Performance Approach	Performance Avoid	Objective Success	Self-Perceptions of success
G1MAGO	0.720	-0.066	-0.020	-0.225	-0.101
G2MAGO	0.906	-0.242	-0.057	-0.308	-0.252
G1PAGO	-0.006	0.628	-0.269	0.056	0.151
G2PAGO	-0.264	0.810	0.164	0.120	0.174
G1PAvGO	-0.080	-0.135	0.881	-0.089	-0.214
G2PAvGO	-0.033	-0.176	-0.543	0.006	0.135
ObjSucc5	-0.331	0.127	-0.078	1.00	0.311
SelfS1	-0.317	0.186	-0.215	0.315	0.877
SelfS2	-0.033	0.219	-0.210	0.271	0.769
SelfS3	-0.129	0.125	-0.145	0.105	0.697

Table A8.2.iv Estimation of the structural model (goal orientations, objective success and self-perceptions of success).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Objective Success	0.122	Medium	1.00	0.105
Self-Perceptions of Success	0.149	Medium	0.547	0.020

Table A8.2.v Statistical results of path coefficients (goal orientations, objective success and self-perceptions of success).

	β	<i>t</i>	SD	SE	CI ₉₅	<i>f</i> ²	<i>f</i> ² effect size
Mastery Approach → Objective Success	-0.324***	3.87	0.084	0.084	.159; .489	.114	Small-medium
Mastery Approach → Self-Perceptions of Success	-0.210*	1.66	0.127	0.127	-.458; .038	.048	small
Performance Approach → Objective Success	0.056	0.437	0.128	0.128	-.195; .307	.003	Negligible
Performance Approach → Self-perceptions of Success	0.173	1.43	0.122	0.122	-.066; .412	.024	small
Performance Avoid → Objective Success	-0.093	0.67	0.139	0.139	-.365; .179	.010	Negligible
Performance Avoid → Self-perceptions of success	-0.250*	2.28	0.110	0.110	-.466; -.034	.066	Small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
 where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval (Hinkle, Wiersma & Jurs, 1998)

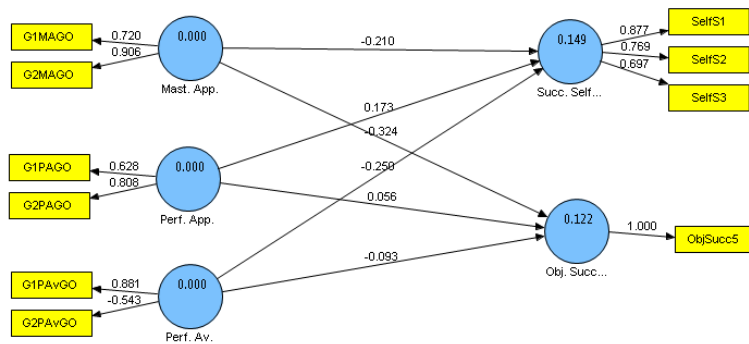


Figure A8.2.i PLS output for the direct effects of goal orientations on self-perceptions of success and objective success.

Appendix 8.3: Model investigating the relationship between goal orientation, planning and success.

Table A8.3.i Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (goal orientations, planning, objective and self-perceptions of success, direct effects).

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Mastery Approach	G1MAGO	0.958	0.847	.776	.645
	G2MAGO	0.611	0.309		
Performance Approach	G1PAGO	0.426	0.381	.654	.518
	G2PAGO	0.925	0.906		
Performance Avoid	G1PAvGO	0.985	0.999	.531	.490
	G2PAvGO	0.090	0.171		
Planning	G1ProactPlan	0.843	0.320	.903	.701
	G1ElabPlan	0.813	0.274		
	G2ProactPlan	0.847	0.329		
	G2ElabPlan	0.844	0.270		
Objective Success	ObjSucc	1.00	1.00	1.00	1.00
Self-Perceptions of Success	SelfSucc1	0.740	0.320	.809	.593
	SelfSucc2	0.928	0.691		
	SelfSucc3	0.609	0.200		

Table A8.3.ii Average Variance Extracted by constructs and correlations between constructs (goal orientations, planning, objective and self-perceptions of success, direct effects).

	1	2	3	4	5	6
Mastery Approach	0.803					
Objective Success	-0.286	1.000				
Performance Approach	-0.137	0.130	0.720			
Performance Avoid	-0.072	-0.088	-0.094	0.700		
Planning	0.269	0.231	0.369	-0.234	0.837	
Self Perceptions of Success	-0.116	0.309	0.219	-0.235	0.274	0.770

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A8.3.iii. Cross-loadings for measurement model (goal orientations, planning, objective and self-perceptions of success, direct effects).

	Mastery Approach	Performance Approach	Performance Avoid	Planning	Objective Success	Self Perceptions of Success
G1MAGO	0.958	-0.056	-0.056	0.281	-0.225	-0.082
G2MAGO	0.611	-0.291	-0.080	0.102	-0.308	-0.152
G1PAGO	-0.047	0.426	-0.323	0.146	0.056	0.179
G2PAGO	-0.132	0.925	0.032	0.346	0.120	0.167
G1PAvGO	-0.065	-0.059	0.985	-0.227	-0.089	-0.247
G2PAvGO	-0.043	-0.203	0.090	-0.040	0.006	0.073
G1ProPlan	0.357	0.293	-0.210	0.843	0.185	0.182
G1EPlan	0.290	0.219	-0.184	0.813	0.166	0.209
G2ProPlan	0.145	0.375	-0.228	0.847	0.230	0.289
G2EPlan	0.102	0.341	-0.152	0.844	0.187	0.234
ObjSucc5	-0.286	0.130	-0.088	0.231	1.00	0.309
SelfS1	-0.231	0.180	-0.148	0.142	0.315	0.740
SelfS2	-0.048	0.196	-0.260	0.305	0.271	0.928
SelfS3	-0.046	0.130	-0.039	0.089	0.105	0.609

Table A8.3.iv. Estimation of the inner model (goal orientations, planning, objective and self-perceptions of success).

	Direct effects only model				Direct and indirect effects model			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Planning	0.270	Large	.773	.196	0.259	Large	.772	.181
Objective Success	0.080	Small-Medium	1.00	-.060	0.212	Medium-Large	1.00	.065
Self-Perceptions of Success	0.075	Small-Medium	.494	.020	0.172	Medium-Large	.605	.052

Table A8.3.v Statistical results for Path Coefficients (goal orientations, planning, objective and self-perceptions of success, direct effects).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Mastery Approach → Planning	0.311**	3.16	0.098	0.098	.119; .503	.123	Small-medium
Performance Approach → Planning	0.396***	4.09	0.097	0.097	.206; .586	.200	Medium
Performance Avoid → Planning	-0.174	1.64	0.107	0.107	-.383; .035	.041	Small
Planning → Objective Success	0.231*	2.10	0.110	0.110	.015; .447		Not calculated as only one path
Planning → Self-Perceptions of Success	0.274*	2.33	0.117	0.117	.045; .503		

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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Table A8.3.vi. Statistical results for Path Coefficients (goal orientations, planning, objective and self-perceptions of success, direct and indirect effects).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Mastery Approach → Objective Success	-0.426***	4.13	0.103	0.103	-.628; -.224	.197	Medium
Mastery Approach → Planning	0.301**	2.67	0.113	0.113	.081; .542	.112	Small-medium
Mastery Approach → Self-Perceptions of Success	-0.248*	1.85	0.134	0.134	-.511; .014	.054	Small
Performance Approach → Objective Success	-0.090	0.716	0.126	0.126	-.337; .156	.008	Negligible
Performance Approach → Self-Perceptions of Success	0.081	0.625	0.130	0.130	-.174; .336	.005	Negligible
Performance Approach → Planning	0.422***	3.61	0.117	0.117	.193; .651	.224	Medium
Performance Avoid → Objective Success	-0.047	0.346	0.136	0.136	-.314; .220	.003	Negligible
Performance Avoid → Self-perceptions of success	-0.208*	1.83	0.113	0.113	-.429; .013	.050	Small
Performance Avoid → Planning	-0.171	1.52	0.113	0.113	-.392; -.050	.039	Small
Planning → Objective Success	0.351**	2.76	0.127	0.127	.102; .600	.115	Small-medium
Planning → Self-Perceptions of Success	0.223*	1.71	0.130	0.130	-.032; .477	.042	Small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table 8.3.vii Test of the indirect effects of Mastery Approach and Performance Approach on the three success variables, via planning.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Mastery Approach → Planning → Self-perceptions of success	.067	.660	.048	1.40	-.02; .17
Mastery Approach → Planning → Objective Success	.106	.105	.061	1.74*	.00; .24
Performance Approach → Planning → Self-perceptions of success	.094	.093	.062	1.52	-.02; .22
Performance Approach → Planning → Objective success	.148	.142	.061	2.43*	.03; .27
Performance Avoid → Planning → Self-perceptions of success	-.038	-.041	.037	-1.03	-.12; .02
Performance Avoid → Planning → Objective success	-.060	-.063	.050	-1.20	-.17; .03

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

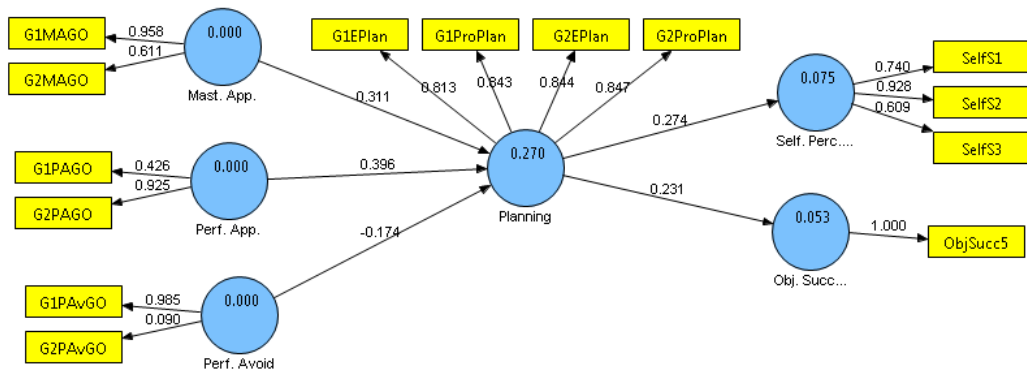


Figure A8.3.i. PLS output for the direct effects of goal orientations on planning, and planning on objective and self-perceptions of success.

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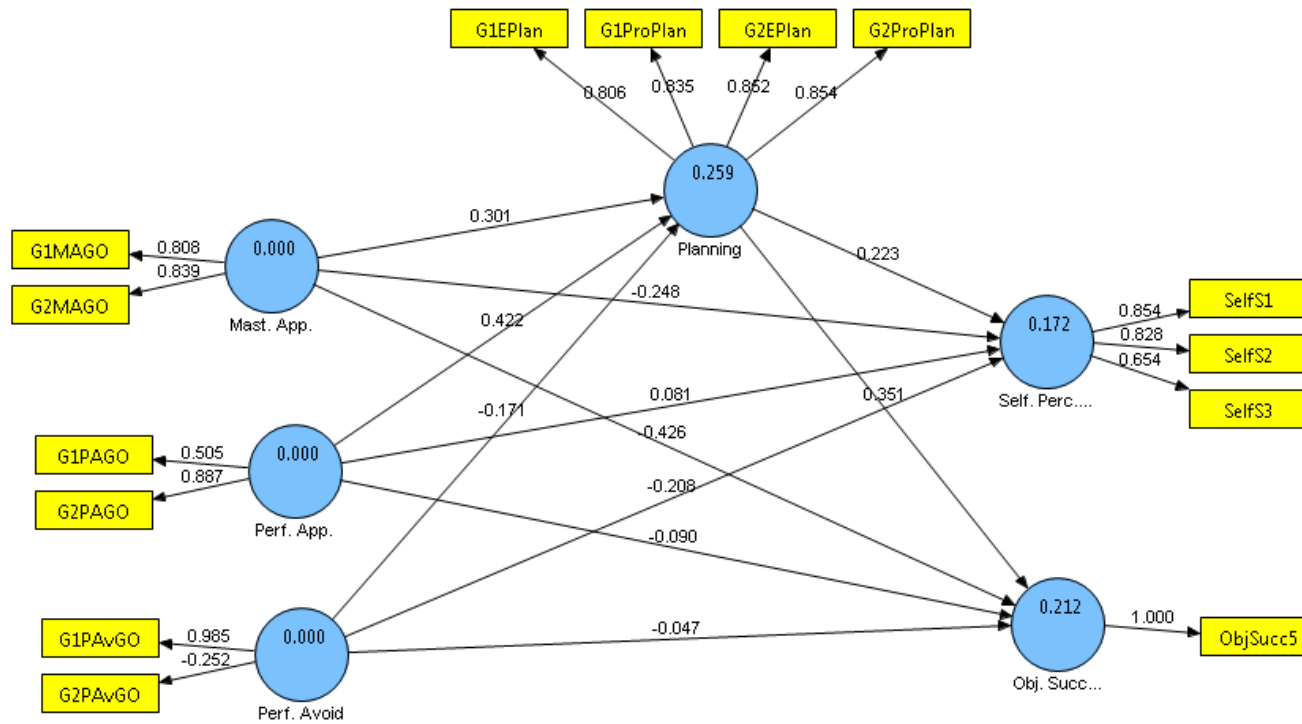


Figure A8.3.ii. PLS output for the direct and in direct effects of goal orientations via planning on objective and self-perceptions of success.

Appendix 8.4: Analysis of the PLS Model investigating the relationship between goal orientation, planning and external success.

In this model direct and indirect effects of goal orientations and planning on external success are evaluated. The sample size requirements are the same as those outlined in section 9.3. Given that the sample size in this model is reduced to N = 48, the power of the test to detect small and medium effect sizes is an issue. The measurement model calculations outlined below are based on the model including the direct paths only. The model which also includes the indirect paths did not show any significant difference in its measurement estimation. The results of the measurement model are similar to those already described in section 9.3 and hence, they will not be outlined in detail.

Table A8.4.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (goal orientations, planning, external success, direct effects).

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Mastery Approach	G1MAGO	0.988	0.921	0.759	0.632
	G2MAGO	0.536	0.169		
Performance Approach	G1PAGO	0.765	0.727	.692	0.529
	G2PAGO	0.688	0.646		
Performance Avoid	G1PAvGO	0.962	0.962	0.323	0.500
	G2PAvGO	-0.272	-0.273		
Planning	G1ProactPlan	0.825	0.336	0.891	0.672
	G1ElabPlan	0.848	0.345		
	G2ProactPlan	0.791	0.277		
	G2ElabPlan	0.813	0.260		
External Success	Ext1	0.838	0.409	0.888	0.800
	Ext2	0.947	0.694		

Table A8.4.ii. Average Variance Extracted by constructs and correlations between constructs (goal orientations, planning, external success, direct effects).

	1	2	3	4	5
1. External Success	0.894				
2. Mastery Approach	0.007	0.795			
3. Performance Approach	0.164	-0.076	0.727		
4. Performance Avoid	-0.019	-0.023	-0.133	0.707	
5. Planning	0.229	0.281	0.394	-0.386	0.820

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A8.4.iii. Cross-loadings for measurement model (goal orientations, planning, external success, direct effects).

	External Success	Mastery Approach	Performance Approach	Performance Avoid	Planning
ExtS1	0.838	0.041	0.058	0.093	0.145
ExtS2	0.947	-0.014	0.202	-0.082	0.245
G1MAGO	0.047	0.99	-0.042	-0.011	0.296
G2MAGO	-0.213	0.536	-0.221	-0.078	0.054
G1PAGO	0.020	-0.003	0.765	-0.250	0.303
G2PAGO	0.231	-0.115	0.688	0.075	0.269
G1PAvGO	-0.048	-0.023	-0.184	0.962	-0.371
G2PAvGO	-0.101	0.004	-0.162	-0.272	0.105
G1EPlan	0.254	0.276	0.348	-0.323	0.848
G1ProPlan	0.180	0.348	0.296	-0.338	0.825
G2EPlan	0.116	0.097	0.345	-0.303	0.813
G2ProPlan	0.184	0.159	0.307	-0.298	0.791

Moving to evaluate the structural model, the R² estimations suggest that in total, 35.9% of the variance in planning was explained by the goal orientation of the participants (a large effect). Planning in turn had a small effect on external success, uniquely explaining 5.3% of its variance. Looking at the model that specified both the direct and indirect effects, goal orientations and planning combined explained 6.8% of the variance in external success. To calculate the predictive relevance of each of the LVs, the blindfolding procedure was performed, with the omission distance set to 7. In the direct effects only model, all of the Q² results, calculated using both the construct cross validated commonality, and the construct cross validated redundancy were above 0, indicating that the model had predictive relevance. However, the cross validated redundancy for external success in the direct and indirect effects model was below zero (the cross validated commonality was above zero), suggesting that the direct effects only model had more predictive relevance for the external success variable.

Table 8.4iv. Estimation of the inner model (goal orientations, planning, external success).

	Direct effects only model				Direct and indirect effects model			
	R ²	R ² effect size	Q ² Cross validated commonalit	Q ² Cross validated redundanc	R ²	R ² effect size	Q ² Cross validated commonalit	Q ² Cross validated redundanc
Planning	.359	Large	.583	.224	.368	Large	.601	.245
External Success	.053	Small	.472	.150	.068	Small	.480	-.470

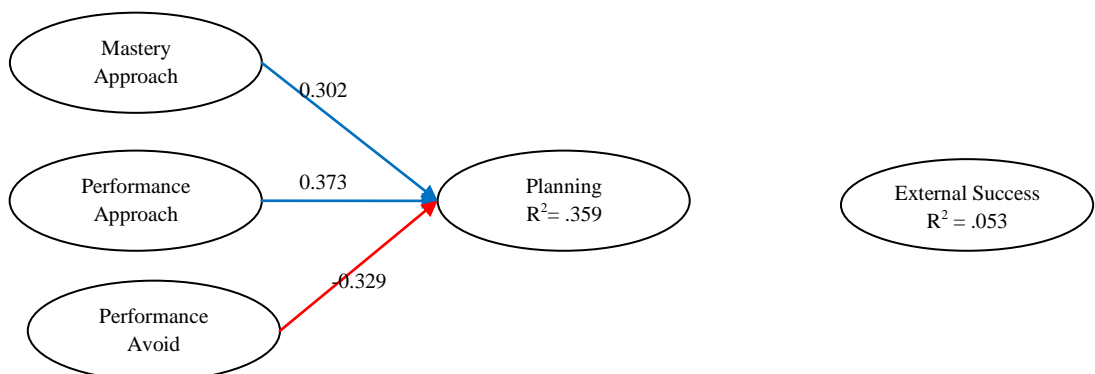


Figure A8.4.i. Results of Partial Least Squares analysis for the model investigating the direct effects of goal orientation on planning and planning on success. (***) p < .001; (***) p < .01; (*) p < .05; non-significant paths are not shown).

Table A8.4.v. Statistical results for Path Coefficients (goal orientations, planning, external success, direct effects).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Mastery Approach → Planning	0.302*	2.29	0.132	0.132	.043; .561	.140	Medium
Performance Approach → Planning	0.373**	3.07	0.122	0.122	.134; .612	.203	Medium
Performance Avoid → Planning	-0.329*	2.80	0.118	0.118	-.560; -.098	.164	Medium
Planning → External Success	0.229	1.53	0.150	0.150	-.065; .523		Not calculated as only path included

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

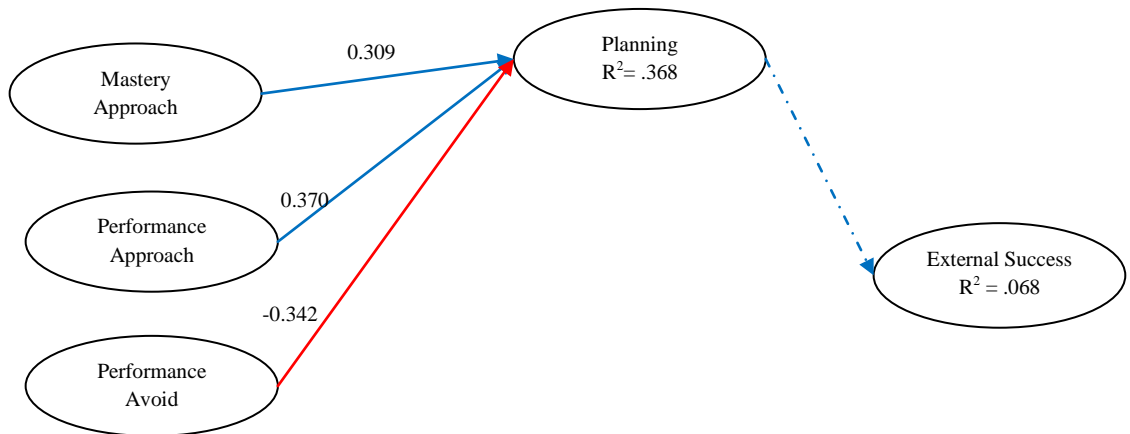


Figure A8.4.ii. Results of Partial Least Squares analysis for the model investigating the direct and indirect effects of goal orientation and planning on success. (***) $p < .001$; (***) $p < .01$; (*) $p < .05$; non-significant paths are not shown).

Table A8.4.vi. Statistical results for Path Coefficients (goal orientations, planning, external success, direct and indirect effects).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Mastery Approach → External Success	-.037	0.148	0.250	0.250	-.527; .453	.011	Negligible
Mastery Approach → Planning	.309*	1.93	0.160	0.160	-.005; .623	.149	Medium
Performance Approach → External Success	.098	0.456	0.215	0.215	-.323; .519	.009	Negligible
Performance Approach → Planning	.370	2.80**	0.136	0.136	.103; .637	.210	Medium
Performance Avoid → External Success	.085	0.404	0.210	0.210	-.327; .497	.011	Negligible
Performance Avoid → Planning	-.342	2.41*	0.142	0.142	-.620; -.064	.180	Medium
Planning → External Success	.231	1.17	0.197	0.197	-.155; .617	.031	Small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Figures A8.4i and ii, and Tables A8.4.v and vi demonstrate the significant and non-significant path coefficients, β , t values, standard deviations (SD) and effect sizes for each of the dependent DVs (see also Figures A8.4iii and iv for the original PLS output). None of the goal orientations had a significant

direct effect on external success in this model. All three of the goal orientations had a significant impact on planning in the expected directions, which provides support for hypothesis 3. It is of note that performance avoid had a significant impact in this model, which it did not in the model investigating objective success and self-perceptions of success. Although, the path from planning to external success was not significant, the results indicate that it had a small impact. Given that the sample size was not sufficient to detect small effects, it is likely that this path would be significant in a larger sample. This provides some weak support for hypothesis 2.

To investigate the indirect effects of goal orientations on external success via planning (hypothesis 4), the recommendations of Preacher and Hayes (2004) were followed. The bootstrap estimations and the associated results of the indirect effects are outlined in Table A8.4.vii. These estimations are based on the model which includes both the direct and indirect paths from goal orientations to success, in order to control for the direct effects. No significant indirect paths were found.

Table A8.4.vii. Test of the indirect effects of Mastery Approach and Performance Approach on the three success variables, via planning.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Mastery Approach → Planning → External success	.071	.078	.074	0.959	-.06; .24
Performance Approach → Planning → External success	.088	.101	.090	0.978	-.05; .31
Performance Avoid → Planning → External success	-.079	-.081	.076	-1.04	-.24; .05

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

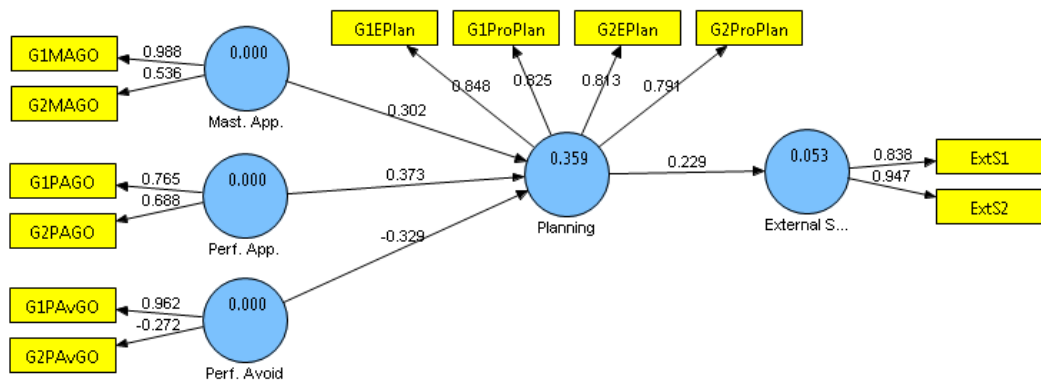


Figure A8.4.iii. Original PLS output for model investigating the direct effects of entrepreneurial orientation on planning and planning on external success.

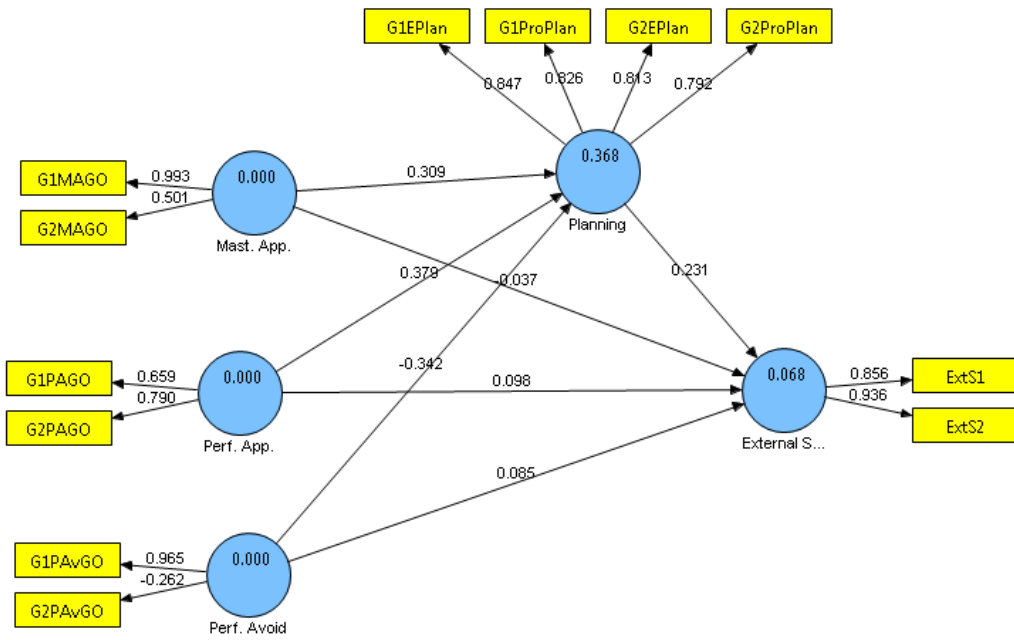


Figure A8.4.iv. Original PLS output model investigating the direct and indirect of entrepreneurial orientation and planning on external success.

Appendix 8.5: Analysis of the direct effects of goal orientations on Actions towards the goal

Table A8.5.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE) for the model investigating the direct effects of goal orientations on actions taken towards ones goals. The measurement criteria for actions towards ones goals was valid and reliable, meeting all of the necessary criteria. Similar issues with regard to the measurement model of the goal orientation variables were found as in the analysis performed in Appendix 8.1, which looked at the direct effects of goal orientations and external success. For this reason, they will not be outlined in detail here.

Hence, while the performance avoid variable is somewhat problematic, overall, the other variables meet all of the measurement criteria. Based on these results, the measurement model overall was deemed to be valid and reliable, except for one item in the Performance Avoid measure, which appeared to have little effect on the overall model.

Table A8.5.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (goal orientation and actions).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Actions	G1Actions	0.896	0.700	0.809	0.681
	G2Actions	0.760	0.500		
Mastery Approach	G1MAGO	-0.491	-0.824	0.016	0.324
	G2MAGO	0.639	0.933		
Performance Approach	G1PAGO	0.281	0.234	0.617	0.512
	G2PAGO	0.972	0.961		
Performance Avoid	G1PAvGO	0.996	1.00	0.501	0.496
	G2PAvGO	0.011	0.093		

Table A8.5.ii. Average Variance Extracted and correlations between constructs (goal orientation and actions).

	1	2	3	4
1. Actions	0.831			
2. Mastery Approach	-0.240	0.570		
3. Performance Approach	0.306	-0.254	0.716	
4. Performance Avoid	-0.218	-0.030	-0.028	0.704

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A8.5.iii. Cross-loadings for measurement model (goal orientation and actions).

	Actions	Mastery Approach	Performance Approach	Performance Avoid
G1Action	0.886	-0.259	0.286	-0.184
G2Action	0.760	-0.118	0.212	-0.179
G1MAGO	0.128	-0.491	-0.048	-0.053
G2MAGO	-0.145	0.639	-0.314	-0.079
G1PAGO	0.073	0.086	0.281	-0.324
G2PAGO	0.301	-0.285	0.972	0.050
G1PAvGO	-0.216	-0.032	-0.008	0.996
G2PAvGO	-0.020	0.020	-0.214	0.011

Regarding the structural model, the model was found to have predictive relevance, with goal orientations predicting 16.9% of the variance in taking actions towards ones goals, which is indicative of a medium effect size. However, performance approach was the only goal orientation to have a significant

and positive impact on actions. However, although non-significant, mastery approach and performance avoid orientations did have a small negative effect on taking actions towards ones goals (see Figure A 8.5.i and Tables A8.5.iv and v).

Table A8.5.iv. Estimation of the structural model (goal orientation, objective success and self-perceptions of success).

	R²	R² effect size	Q² Cross validated commonality	Q² Cross validated redundancy
Actions	0.169	Medium	0.733	0.125

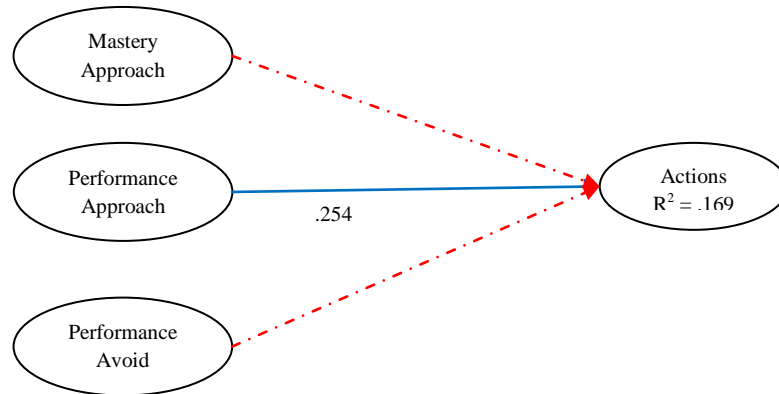


Figure A8.5.i. Results of Partial Least Squares analysis for the model investigating the relationships between goal orientation and actions. (*) p < .001; **p < .01; * p < .05; dashed lined indicate non-significant paths).**

Table A8.5.v. Statistical results for Path Coefficients (goal orientation and actions).

	β	t	SD	SE	CI₉₅	f²	f² effect size
Mastery Approach → Actions	-0.182	1.077	0.169	0.169	-.513; .128	.039	Small
Performance Approach → Actions	0.254*	1.949	0.130	0.130	.000; .508	.071	Small-medium
Performance Avoid → Actions	-0.217	1.494	0.145	0.145	-.541; .027	.053	Small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

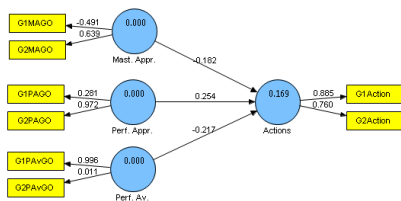


Figure A8.5.ii. Original PLS output model investigating the direct effects of goal-setting on objective success and self-perceptions of success.

Appendix 8.6: Analysis of the direct effects of goal setting on objective success and self-perceptions of success.

Table A8.6.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE) for the model investigating the direct effects of goal orientations on actions taken towards ones goals. The AVE and composite reliability were all above the recommended criteria, but a number of the factor loadings were somewhat low. All of the criteria for validity were also met.

Table A8.6.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (goal-setting, self-perceptions of success, and objective success).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Goal Difficulty	G1DiffI	0.596	0.184	.806	.543
	G1DiffS	0.296	-0.057		
	G2DiffI	0.928	0.433		
	G2DiffS	0.932	0.543		
Goal Specificity	G1Spec	0.504	0.119	.747	.621
	G2Spec	0.994	0.946		
Objective Success	ObjSucc5	1.00	1.00	1.00	1.00
Self-perceptions of success	SelfS1	0.775	0.383	.811	.596
	SelfS2	0.914	0.658		
	SelfS3	0.593	0.172		

Table A8.6.ii. Average Variance Extracted and correlations between constructs (goal-setting, self-perceptions of success, and objective success).

	1.	2.	3.	4.
1. Goal Difficulty	0.737			
2. Goal Specificity	0.303	0.788		
3. Objective Success	0.236	0.099	1.000	
4. Self Perceptions of Success	0.094	0.272	0.317	0.772

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A8.6.iii. Cross-loadings for measurement model (goal-setting, self-perceptions of success, and objective success).

	Goal Difficulty	Goal Specificity	Objective Success	Self Perceptions of Success
G1DiffI	0.596	0.231	0.058	0.099
G1DiffS	0.296	0.055	-0.008	-0.056
G2DiffI	0.928	0.340	0.181	0.120
G2DiffS	0.932	0.215	0.271	0.037
G1Spec	0.235	0.504	0.098	0.005
G2Spec	0.291	0.994	0.093	0.287
ObjSucc5	0.236	0.099	1.00	0.317
SelfS1	0.015	0.173	0.315	0.775
SelfS2	0.085	0.295	0.271	0.914
SelfS3	0.187	0.070	0.105	0.593

Regarding the structural model, the model had predictive relevance for self-perceptions of success, but the cross validated redundancy for objective success was below zero. Overall, goal-setting was found to predict 7.4% of the variance in self-perceptions of success, and 5.7% of the variance in

objective success. However, none of the individual paths were statistically significant, although the results indicated that both goal difficulty and goal specificity had a small effect on objective success.

Table A8.6.iv. Estimation of the structural model (goal-setting, self-perceptions of success, and objective success).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Self-perceptions of success	.074	Small-medium	.504	1.00
Objective Success	.057	Small-medium	-.100	.105

Table A8.6.v. Statistical results for Path Coefficients (goal-setting, self-perceptions of success, and objective success).

	β	<i>t</i>	SD	SE	CI ₉₅	<i>f</i> ²	<i>f</i> ² effect size
Goal Difficulty → Objective Success	0.227	1.39	0.163	0.163	-.092; .546	.050	Small
Goal Difficulty → Self Perceptions of Success	0.012	0.057	0.217	0.217	-.413; .437	.001	Negligible
Goal Specificity → Objective Success	0.030	0.248	0.12	0.122	-.209; .269	.001	Negligible
Goal Specificity → Self Perceptions of Success	0.269	1.17	0.230	0.230	-.182; .720	.040	Small

* *p* < .05, ** *p* < .001; *** *p* < .0001

*t*_{0.05, 4999} = 1.645; *t*_{0.01, 4999} = 2.576; *t*_{0.001, 4999} = 3.291 (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: CI₉₅ = $\beta \pm t_{CV} * SE$

where *t*_{CV} = 1.96 for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

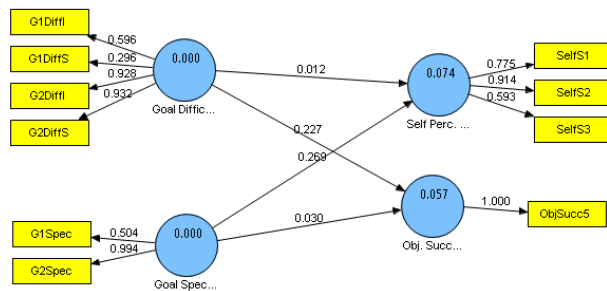


Figure A8.6.i. Original PLS output for the model investigating the direct effects of goal-setting on objective success and self-perceptions of success

Appendix 8.7: Model investigating goal orientations, goal-setting, actions, objective success and subjective success.

Table A8.7.i Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Mastery Approach	G1MAGO	0.980	0.905	0.753	0.623
	G2MAGP	0.534	0.211		
Performance Approach	G1PAGO	0.542	0.501	0.675	0.522
	G2PAGO	0.866	0.841		
Performance Avoid	G1PAvGO	0.856	0.898	0.613	0.466
	G2PAvGO	0.447	0.520		
Goal-Difficulty	G1DiffI	0.794	0.346	0.854	0.600
	G1DiffS	0.549	0.149		
	G2DiffI	0.873	0.396		
	G2DiffS	0.840	0.355		
Goal Specificity	G1Spec	0.848	0.611	0.826	0.704
	G2Spec	0.830	0.581		
Actions towards goals	G1Action	0.842	0.626	0.813	0.685
	G2Action	0.813	0.581		
Objective Success	ObjSucc5	1.00	1.00	1.00	1.00
Self-Perceptions of Success	SelfS1	0.789	0.393	0.829	0.619
	SelfS2	0.855	0.528		
	SelfS3	0.709	0.336		

Table A8.7.ii Average Variance Extracted by constructs and correlations between constructs to assess Convergent and Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.
1. Actions	0.828							
2. Goal Difficulty	0.459	0.774						
3. Goal Specificity	0.641	0.325	0.839					
4. Mastery Approach	0.069	0.229	0.194	0.789				
5. Objective Success	0.328	0.186	0.114	-0.269	1.000			
6. Performance Approach	0.288	0.135	0.248	-0.112	0.129	0.722		
7. Performance Avoid	-0.205	-0.227	-0.155	-0.077	-0.077	-0.190	0.682	
8. Subjective Perceptions of Success	0.263	0.095	0.147	-0.117	0.303	0.227	-0.147	0.787

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Appendices pertaining to Chapter 8

Table A8.7.iii Cross-loadings for measurement model

	Actions	Goal Difficulty	Goal Specificity	Mastery Approach	Objective Success	Performance Approach	Performance Avoid	Subjective Perceptions of Success
G1Action	0.842	0.387	0.620	0.162	0.190	0.260	-0.173	0.200
G2Action	0.813	0.373	0.435	-0.056	0.360	0.214	-0.166	0.237
G1DiffI	0.360	0.794	0.305	0.234	0.058	0.147	-0.137	0.100
G1DiffS	0.158	0.549	0.073	0.050	-0.008	-0.043	-0.186	-0.087
G2DiffI	0.420	0.873	0.334	0.236	0.181	0.159	-0.181	0.137
G2DiffS	0.408	0.840	0.214	0.133	0.271	0.077	-0.225	0.057
G1Spec	0.545	0.262	0.848	0.216	0.098	0.174	-0.166	-0.010
G2Spec	0.530	0.283	0.830	0.106	0.093	0.244	-0.093	0.263
G1MAGO	0.111	0.241	0.201	0.980	-0.225	-0.062	-0.067	-0.083
G2MAGO	-0.149	0.050	0.055	0.534	-0.308	-0.265	-0.079	-0.198
ObjSucc5	0.328	0.186	0.114	-0.269	1.00	0.129	-0.077	0.303
G1PAGO	0.078	0.101	0.113	-0.054	0.056	0.542	-0.293	0.163
G2PAGO	0.295	0.100	0.228	-0.101	0.120	0.866	-0.052	0.172
G1PAvGO	-0.217	-0.199	-0.115	-0.060	-0.089	-0.102	0.856	-0.228
G2PAvGO	-0.020	-0.093	-0.099	-0.043	0.006	-0.189	0.447	0.110
SelfS1	0.189	-0.011	0.135	-0.207	0.315	0.185	-0.080	0.789
SelfS2	0.254	0.103	0.181	-0.050	0.271	0.210	-0.239	0.855
SelfS3	0.162	0.135	-0.007	-0.027	0.105	0.128	0.031	0.709

Table A8.7.iv Estimation of the inner model

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Goal Difficulty	0.111	Medium	0.612	0.108	0.111	Medium	.607	.092
Goal Specificity	0.119	Medium	0.732	0.220	0.119	Medium	0.731	.193
Actions towards goals	0.481	Large	0.641	0.220	0.505	Large	0.642	0.286
Objective Success	0.108	Medium	1.00	0.239	0.128	Medium	1.00	0.243
Self-Perceptions of Success	0.069	Small-Medium	0.740	-0.027	0.070	Small-medium	0.700	-0.033

Appendices pertaining to Chapter 8

Table A8.7.v Statistical results for Path Coefficients (goal orientations, goal-setting, actions, objective success and subjective success, direct effects only).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Actions → Objective Success	0.328**	3.16	0.104	0.104	.124; .532	-	Only predictor
Actions → Self-Perceptions of Success	0.263**	3.09	0.085	0.085	.096; .430	-	Only predictor
Goal Specificity → Actions	0.550***	7.25	0.076	0.076	.401; .699	.524	Large
Goal-difficulty → Actions	0.280**	3.28	0.085	0.085	.113; .447	.131	Small-medium
Mastery Approach → Goal Specificity	0.215*	1.71	0.126	0.126	-.032; .462	.051	Small
Mastery Approach → Goal-difficulty	0.229*	1.87	0.122	0.122	-.010; .468	.056	Small
Performance Approach → Goal Specificity	0.255*	2.19	0.116	0.116	.028; .482	.069	Small
Performance Approach → Goal-difficulty	0.125	1.15	0.109	0.109	-.089; .339	.017	Small
Performance Avoid → Goal Specificity	-0.090	0.725	0.125	0.125	-.355; .155	.009	Negligible
Performance Avoid → Goal-difficulty	-0.185*	1.66	0.111	0.111	-.403; .033	.031	Small

* $p < .05$, ** $p < .01$; *** $p < .001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table A8.7.vi Statistical results for Path Coefficients (goal orientations, goal-setting, actions, objective success and subjective success, direct and indirect effects).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Actions → Objective Success	0.409**	2.65	0.155	0.155	.105; .713	.100	Small-medium
Actions → Self-Perceptions of Success	0.292	1.60	0.182	0.182	-.065; .649	.034	Small
Goal Specificity → Actions	0.523***	5.76	0.091	0.091	.345; .701	.461	Large
Goal Specificity → Objective success	-0.168	1.19	0.141	0.141	-.444; .108	.014	Very small
Goal Specificity → Self-perceptions of success	-0.025	0.119	0.209	0.209	-.435; .385	.001	Negligible
Goal-difficulty → Actions	0.278**	3.09	0.090	0.090	.102; .454	.123	Small-medium
Goal Difficulty → Objective success	0.060	0.433	0.140	0.140	-.214; .334	.018	Small
Goal Difficulty → Self-perceptions of success	-0.028	0.150	0.188	0.188	-.388; .340	.001	Negligible
Mastery Approach → Goal Specificity	0.208	1.53	0.136	0.136	-.059; .475	.049	Small
Mastery Approach → Goal-difficulty	0.237	1.55	0.153	0.153	-.063; .536	.062	Small
Mastery Approach → Actions	-0.068	0.462	0.148	0.148	-.350; .222	.006	Negligible
Performance Approach → Goal Specificity	0.253*	2.27	0.112	0.112	.033; .472	.070	Small
Performance Approach → Goal-difficulty	0.123	1.13	0.109	0.109	-.091; .337	.017	Very small
Performance Approach → Actions	0.116	0.877	0.132	0.132	-.143; .375	.024	Small
Performance Avoid → Goal Specificity	-0.099	0.806	0.123	0.123	-.331; .142	.011	Very small
Performance Avoid → Goal-difficulty	-0.192*	1.70	0.113	0.113	-.413; .029	.036	Small
Performance Avoid → Actions	-0.068	0.569	0.119	0.119	-.301; .165	.010	Very small

* $p < .05$, ** $p < .01$; *** $p < .001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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Table A8.7.vii Estimations of the significance of the specific indirect effects with one mediator.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Mastery Approach → Goal difficulty → Actions	.066	.057	.046	1.43	-.05; .14
Mastery Approach → Goal specificity → Actions	.109	.105	.077	1.41	-.05; .26
Performance Approach → Goal difficulty → Actions	.034	.039	.033	1.04	-.02; .11
Performance Approach → Goal specificity → Actions	.132	.140	.063	2.10*	.024; .267
Performance Avoid → Goal difficulty → Actions	-.053	-.050	.037	1.44	-.13; .02
Performance Avoid → Goal specificity → Actions	-.052	-.055	.063	-.082	-.18; .09
Goal difficulty → Actions → Self- Perceptions of success	.081	.079	.056	1.45	-.02; .20
Goal difficulty → Actions → Objective Success	.114	.111	.057	1.99*	.01; .24
Goal specificity → Actions → Self- Perceptions of success	.153	.160	.106	1.44	-.04; .38
Goal specificity → Actions → Objective Success	.214	.215	.097	2.21*	.05; .43

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Table A8.7.viii Estimations of the significance of the total indirect effects from goal orientations to actions.

	Total indirect effect	Mean Bootstrapped total indirect effect	Bootstrapped Sd	t	BC CI ₉₅
Mastery Approach → Actions ¹	.175	.163	.102	1.72*	-.09; .35
Performance Approach → Actions ²	.166	.179	.073	2.27*	.04; .33
Performance Avoid → Actions ³	-.158	-.106	.079	-2.00*	-.25; .08

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

¹ Mastery Approach → Actions = (MA→GD→Actions) + (MA →GS →Actions)

² Performance Approach → Actions = (PA→GD→Actions) + (PA →GS →Actions)

³ Performance Avoid → Actions = (PAv→GD→Actions) + (PAv →GS →Actions)

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Table A8.7.ix Estimations of the significance of the specific indirect effects with two sequential mediators.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Mastery Approach → Goal difficulty → Actions → Self-perceptions of success	.018	.017	.019	0.947	-.02; .06
Mastery Approach → Goal difficulty → Actions → Objective success	.027	.023	.022	1.23	-.02; .07
Mastery Approach → Goal specificity → Actions → Self-perceptions of success	.032	.034	.037	0.865	-.02; .13
Mastery Approach → Goal specificity → Actions → Objective Success	.045	.046	.043	1.05	-.02; .15
Performance Approach → Goal difficulty → Actions → Subjective perceptions of success	.010	.012	.013	0.769	-.01; .04
Performance Approach → Goal difficulty → Actions → Objective Success	.014	.017	.017	0.824	-.01; .06
Performance Approach → Goal specificity → Actions → Self-perceptions of success	.039	.043	.034	1.15	-.01; .12
Performance Approach → Goal specificity → Actions → Objective success	.054	.058	.038	1.42	.00; .15
Performance Avoid → Goal difficulty → Actions → Self perceptions of success	-.015	-.014	.015	-1.00	-.05; .01
Performance Avoid → Goal difficulty → Actions → Objective success	-.022	-.020	.017	-1.29	-.06; .01
Performance Avoid → Goal specificity → Actions → Self perceptions of success	-.015	-.016	.025	-0.600	-.07; .03
Performance Avoid → Goal specificity → Actions → Objective success	-.021	-.022	.031	-0.677	-.09; .04

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)

Table A8.7.x Estimations of the significance of the total indirect effects from goal orientations to success.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t = (ab orig.)/ (SD ab Bootstrapped)	BC CI ₉₅
Mastery Approach → Self-perceptions of success ⁴	.051	.051	.050	1.02	-.03; .17
Mastery Approach → Objective success ⁵	.072	.070	.058	1.24	-.03; .20
Performance Approach → Self perceptions of success ⁶	.048	.054	.042	1.14	-.01; .15
Performance Approach → Objective Success ⁷	.068	.075	.046	1.48	.01; .18
Performance Avoid → Self perceptions of success ⁸	-.046	-.031	.033	-1.39	-.11; .03
Performance Avoid → Objective Success ⁹	-.065	-.042	.038	-1.71*	-.13; .04

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)

⁴ Mastery Approach → Self-perceptions of success = [(MA→GD→Actions) + (MA →GS →Actions)][Actions →self-perceptions]

⁵ Mastery Approach → Objective success = [(MA→GD→Actions) + (MA →GS →Actions)][Actions →objective success]

⁶ Performance Approach → Self perceptions of success = [(PA→GD→Actions) + (PA →GS →Actions)][Actions →self-perceptions]

⁷ Performance Approach → Objective Success = [(PA→GD→Actions) + (PA →GS →Actions)][Actions →objective success]

⁸ Performance Avoid → Self perceptions of success = [(PAv→GD→Actions) + (PAv →GS →Actions)][Actions →self-perceptions]

⁹ Performance Avoid → Objective Success = [(PAv→GD→Actions) + (PAv →GS →Actions)][Actions →objective success]

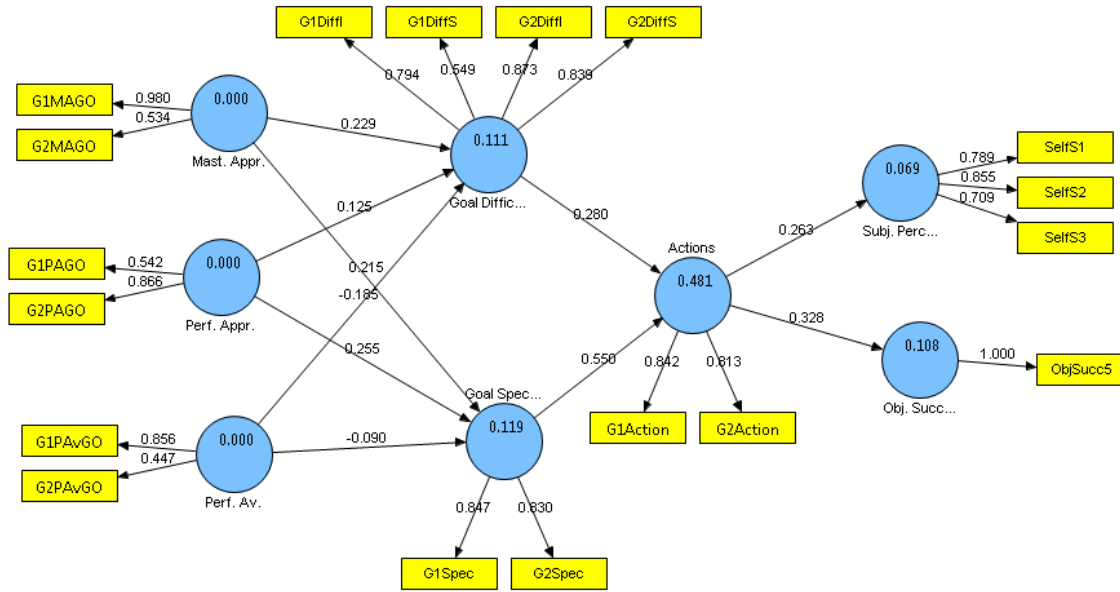


Figure A8.7.i. Original PLS output for the model investigating the direct effects of goal-orientations on goal-setting, goal-setting on actions, and actions on objective success and self-perceptions of success.

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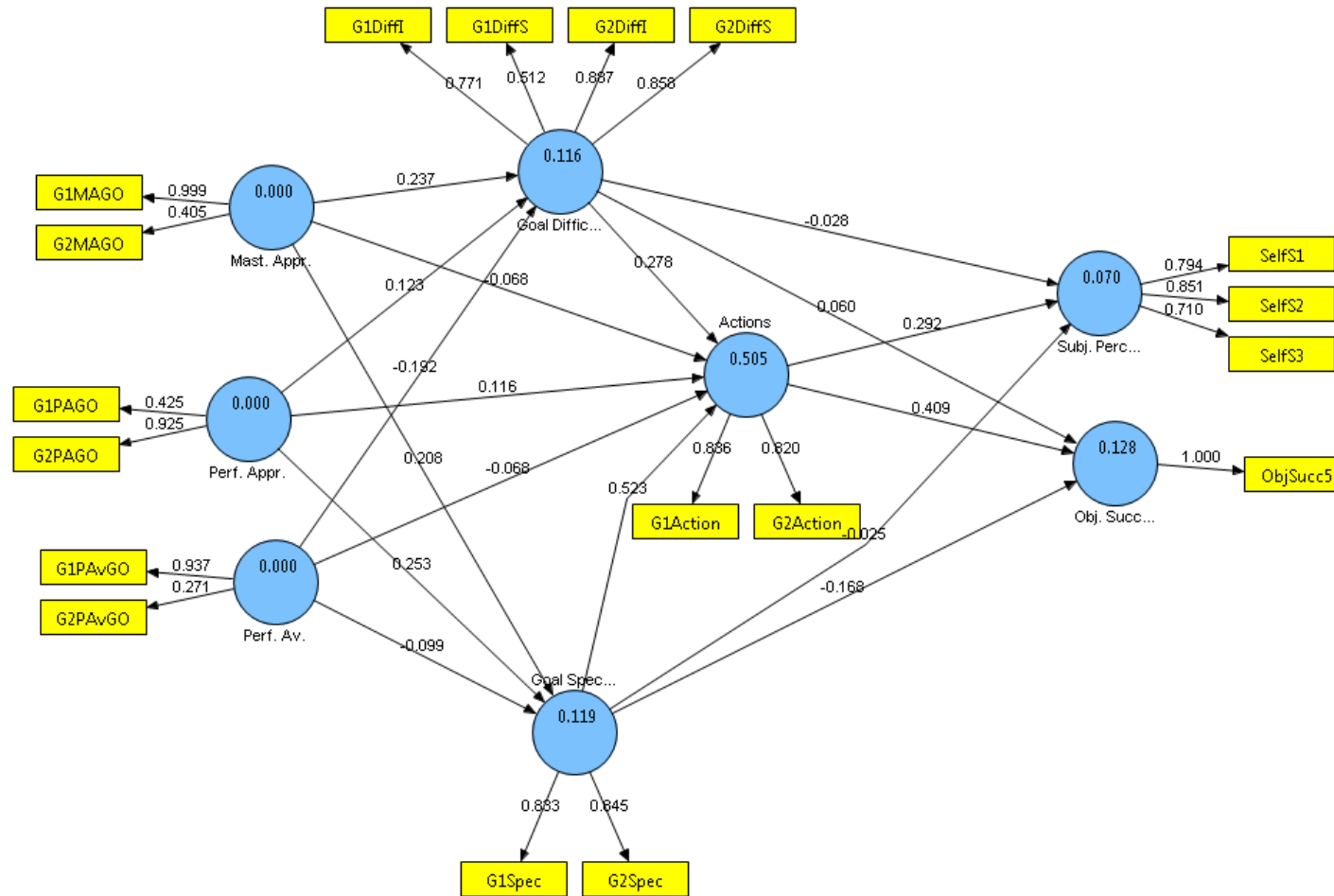


Figure A8.7.ii. Original PLS output for the model investigating the direct and indirect effects of goal-orientations, goal-setting, and actions on objective success and self-perceptions of success.

Appendix 8.8: Analysis of the effects of goal orientations, goal setting and actions on external success.

The model tested in this appendix is analogous to that tested in section 8.4, but included the external success measure and excluded objective success and self-perceptions of success. Hence, this analysis uses the reduced sample of N = 48 for which data was available on the external success measure. As a result, this model is only powerful enough to detect large effects at a significant level, but serves to corroborate the findings of the previous analysis. As in section 8.4., the model was estimated using both the fully specified model (both indirect and direct paths) and the direct effects only, which is what the measurement model estimations are based upon. The results of the measurement are in line with that described in section 8.4, and hence, the explanation will not be repeated here. Overall, the measurement model was deemed to be valid and reliable, save for the same issues with goal orientation as in previous analysis.

Table A8.8.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Mastery Approach	G1MAGO	0.994	0.947	0.744	0.617
	G2MAGP	0.496	0.118		
Performance Approach	G1PAGO	0.974	0.961	0.620	0.515
	G2PAGO	0.284	0.227		
Performance Avoid	G1PAvGO	0.995	0.995	0.442	0.500
	G2PAvGO	-0.104	-0.105		
Goal-Difficulty	G1DiffI	0.728	0.304	0.847	0.596
	G1DiffS	0.443	0.064		
	G2DiffI	0.915	0.381		
	G2DiffS	0.907	0.443		
Goal Specificity	G1Spec	0.825	0.566	0.829	0.708
	G2Spec	0.858	0.622		
Actions towards goals	G1Action	0.851	0.634	0.816	0.690
	G2Action	0.810	0.569		
External Success	ExtS1	0.842	0.417	0.889	0.801
	ExtS2	0.945	0.687		

Table A8.8.ii. Average Variance Extracted by constructs and correlations between constructs to assess Convergent and Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.
1. Actions	0.831						
2. External Success	0.429	0.895					
3. Goal Difficulty	0.387	-0.014	0.772				
4. Goal Specificity	0.616	0.130	0.255	0.841			
5. Mastery Approach	0.020	0.020	0.206	0.151	0.786		
6. Performance Approach	0.387	0.071	0.239	0.318	-0.027	0.717	
7. Performance Avoid	-0.375	-0.036	-0.201	-0.291	-0.019	-0.252	0.707

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A8.8.iii. Cross-loadings for measurement model

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	Actions	External Success	Goal Difficulty	Goal Specificity	Mast. Appr.	Perf. Appr.	Perf. Avoid
G1Action	0.851	0.298	0.328	0.603	0.086	0.316	-0.342
G2Action	0.810	0.422	0.315	0.410	-0.061	0.327	-0.279
ExtS1	0.277	0.842	-0.092	0.096	0.051	-0.050	0.066
ExtS2	0.456	0.945	0.035	0.131	-0.002	0.133	-0.093
G1DiffI	0.248	-0.004	0.728	0.189	0.232	0.134	-0.115
G1DiffS	0.068	-0.042	0.443	-0.049	0.033	-0.099	-0.187
G2DiffI	0.318	-0.109	0.915	0.285	0.212	0.223	-0.157
G2DiffS	0.420	0.070	0.907	0.207	0.119	0.271	-0.214
G1Spec	0.502	0.130	0.142	0.825	0.104	0.277	-0.193
G2Spec	0.533	0.090	0.281	0.858	0.149	0.259	-0.293
G1MAGO	0.055	0.047	0.213	0.159	0.994	-0.021	-0.010
G2MAGO	-0.271	-0.213	0.037	0.005	0.496	-0.060	-0.084
G1PAGO	0.329	0.019	0.268	0.289	-0.005	0.974	-0.275
G2PAGO	0.309	0.231	-0.080	0.176	-0.097	0.284	0.052
G1PAvGO	-0.372	-0.047	-0.209	-0.284	-0.019	-0.267	0.995
G2PAvGO	0.053	-0.102	-0.063	0.089	0.005	-0.124	-0.104

The results of the structural model for the two versions of the model are outlined below. Goal orientations explained 12.2% of the variance in goal difficulty and 17.2% of the variance in goal specificity. Goal setting, in turn explained 43.5% of the variance in actions, and when the direct paths from goal orientations were included, this increased to 54.3%. Taking actions towards ones goals explained 18.4% of the variance in external success, and this increased to 24.4% when the direct paths from the two goal-setting components were included as well. The model overall had predictive relevance, but the cross validated redundancy for the external success measure was below zero, although the cross-validated commonality was above zero, suggesting that there may be some issue with predictive relevance for this variable.

Table A8.8.iv Estimation of the inner model

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Goal Difficulty	0.122	Medium	.733	.124	0.093	Medium	.731	.084
Goal Specificity	0.172	Medium	.727	.261	0.179	Medium	.734	.244
Actions towards goals	0.435	Large	.663	0.291	0.543	Large	.662	.553
External Success	0.184	Medium	.476	-.080	0.244	Large	.480	-.523

Looking at the individual path coefficients, goal specificity and goal difficulty had large and small-medium significant effects on actions, and actions had a large significant impact on ratings of external success. None of the goal orientations had significant effects on variables they were hypothesised to predict, but the effect size estimations suggest that they did have a small effect on all these variables. Hence, it can be concluded that goal orientations are having an impact, but the sample size is not large enough for the test to detect this as significant. Similarly, goal-difficulty and goal-specificity had a small, but non-significant effect on external success.

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Table A8.8.v. Statistical results for Path Coefficients (goal orientations, goal-setting, actions, external success, direct effects only).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Actions → External Success	0.429***	4.29	.100	.100	.233; .529	-	-
Goal Specificity → Actions	0.553***	5.47	0.101	0.101	.355; .751	.506	Large
Goal-difficulty → Actions	0.246*	2.32	0.106	0.106	.038; .454	.096	Small-medium
Mastery Approach → Goal Specificity	0.154	0.849	0.182	0.182	-.203; .511	.029	Small
Mastery Approach → Goal-difficulty	0.209	1.07	0.195	0.195	-.173; .592	.047	Small
Performance Approach → Goal Specificity	0.266	1.44	0.185	0.185	-.097; .629	.081	Small-medium
Performance Approach → Goal-difficulty	0.208	1.19	0.175	0.175	-.135; .551	.047	Small
Performance Avoid → Goal Specificity	-0.145	1.54	0.144	0.144	-.427; .137	.054	Small
Performance Avoid → Goal-difficulty	-0.221	0.913	0.159	0.159	-.533; .091	.013	Very small

* $p < .05$, ** $p < .01$; *** $p < .001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

With regard to the indirect effects, the following paths were significant:

- Goal specificity → actions → external success

The total indirect effect of mastery approach on actions via both goal difficulty and goal specificity, did not reach significance, but the BC CI₉₅ did not include zero, suggesting that there may indeed be an indirect effect. None of the other indirect effects reached significance.

Table A8.8.vi. Statistical results for Path Coefficients (goal orientations, goal-setting, actions, and external success, direct and indirect effects).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Actions → External Success	.633***	4.29	0.147	0.147	.345; .921	.294	Medium-Large
Goal Specificity → Actions	.422***	3.54	0.119	0.119	.187; .655	.295	Medium-Large
Goal Specificity → External success	-.206	1.20	0.172	0.172	-.543; .131	.028	Small
Goal-difficulty → Actions	.175*	1.65	0.106	0.106	-.033; .382	.002	Negligible
Goal Difficulty → External success	-.210	1.28	0.164	0.164	-.852; .111	.041	Small
Mastery Approach → Goal Specificity	-.130	0.822	0.159	0.159	-.442; .182	.021	Small
Mastery Approach → Goal-difficulty	-.174	1.04	0.167	0.167	-.501; .153	.035	Small
Mastery Approach → Actions	-.194	0.717	0.270	0.270	-.723; .335	.079	Small
Performance Approach → Goal Specificity	.267*	1.72	0.155	0.155	-.037; .571	.085	Small
Performance Approach → Goal-difficulty	.138	0.766	0.181	0.181	-.217; .488	.028	Small
Performance Approach → Actions	.196	1.16	0.169	0.169	-.135; .527	.050	Small
Performance Avoid → Goal Specificity	-.246*	1.76	0.140	0.140	-.030; .520	.066	Small
Performance Avoid → Goal-difficulty	-.179	1.18	0.152	0.152	-.477; .119	.013	Very small
Performance Avoid → Actions	-.193	1.51	0.128	0.128	-.444; .058	.090	Small

* $p < .05$, ** $p < .01$; *** $p < .001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table A8.8.vii Estimations of the significance of the specific indirect effects with one mediator.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t = (ab orig.)/(SD ab Bootstrapped)	BC CI ₉₅
Mastery Approach → Goal difficulty → Actions	-.030	-.042	.043	-.678	-.14; .04
Mastery Approach → Goal specificity → Actions	-.055	-.073	.085	-.647	-.27; .08
Performance Approach → Goal difficulty → Actions	.024	.034	.044	.545	-.05; .13
Performance Approach → Goal specificity → Actions	.113	.147	.089	1.27	.00; .34
Performance Avoid → Goal difficulty → Actions	-.031	-.034	.042	-.738	-.13; .05
Performance Avoid → Goal specificity → Actions	-.043	-.106	.069	-.623	-.25; .02
Goal difficulty → Actions → External success	.111	.139	.079	1.41	.00; .31
Goal specificity → Actions → External Success	.267	.288	.113	2.36*	.09; .54

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

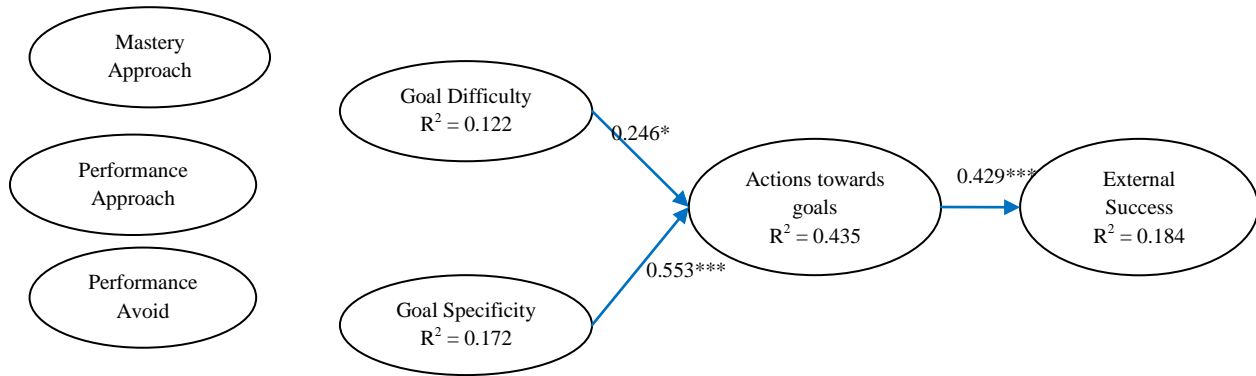


Figure A8.8.i. Results of Partial Least Squares analysis for the model investigating the direct relationships between goal orientation, goal-setting, actions, and external success (*** p < .001; **p < .01; * p < .05; non-significant paths are not shown).

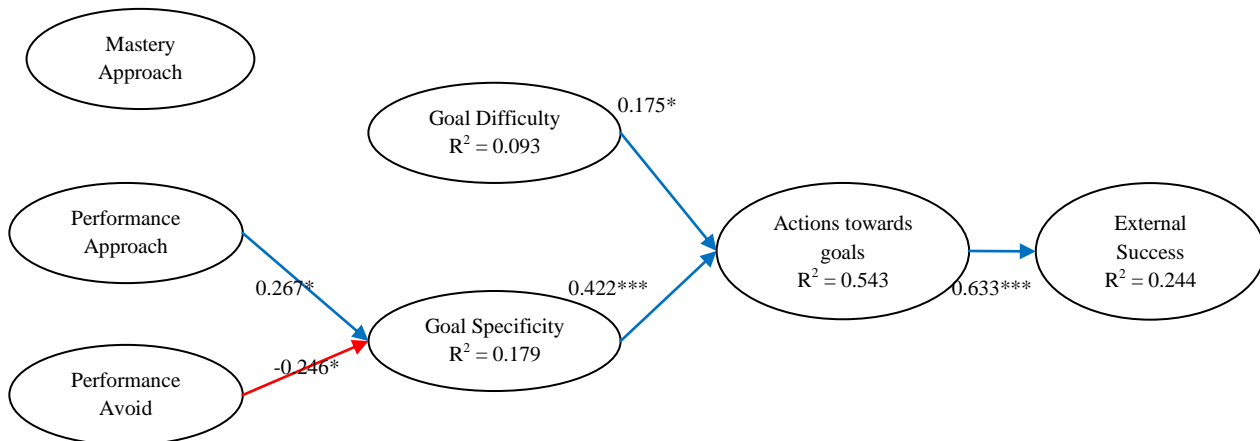


Figure A8.8.ii. Results of Partial Least Squares analysis for the model investigating the direct and indirect relationships between goal orientation, goal-setting, actions, and external success (*** p < .001; **p < .01; * p < .05; non-significant paths are not shown).

Table A8.8.viii. Estimations of the significance of the total indirect effects from goal orientations to actions.

	Total indirect effect	Mean Bootstrapped total indirect effect	Bootstrapped Sd	t = (ab orig.)/ (SD ab Bootstrapped)	BC CI ₉₅
Mastery Approach → Actions ¹⁰	-.088	-.115	.103	-.854	-.34; .07
Performance Approach → Actions ¹¹	.137	.181	.100	1.37	.01; .40
Performance Avoid → Actions ¹²	-.074	-.140	.082	-.902	-.31; .02
* p < .05, ** p < .01; *** p < .001					
$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)			(Lindley & Scott, 1984)		

Table A8.8.ix. Estimations of the significance of the specific indirect effects with two sequential mediators.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t = (ab orig.)/ (SD ab Bootstrapped)	BC CI ₉₅
Mastery Approach → Goal difficulty → Actions → External success	-.013	-.028	.030	-.433	-.10; .02
Mastery Approach → Goal specificity → Actions → External success	-.024	-.048	.059	-.407	-.19; .05
Performance Approach → Goal difficulty → Actions → External success	.010	.022	.029	.345	-.03; .09
Performance Approach → Goal specificity → Actions → External success	.048	.094	.064	.750	.00; .25
Performance Avoid → Goal difficulty → Actions → External success	-.013	-.022	.028	-.464	-.09; .03
Performance Avoid → Goal specificity → Actions → External success	-.018	-.069	.052	-.346	-.19; .02
* p < .05, ** p < .01; *** p < .001					
$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)			(Lindley & Scott, 1984)		

Table A8.8.x. Estimations of the significance of the total indirect effects from goal orientations to success.

	Orig. ab	Mean Bootstrapped ab	Bootstrapped Sd	t = (ab orig.)/ (SD ab Bootstrapped)	BC CI ₉₅
Mastery Approach → External success ¹³	-.038	-.076	.074	-.510	-.25; .04
Performance Approach → External success ¹⁴	.058	.116	.075	.784	.00; .29
Performance Avoid → External success ¹⁵	-.032	-.091	.063	-.504	-.24; .01
* p < .05, ** p < .01; *** p < .001					
$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)			(Lindley & Scott, 1984)		

¹⁰ Mastery Approach → Actions = (MA→GD→Actions) + (MA →GS →Actions)

¹¹ Performance Approach → Actions = (PA→GD→Actions) + (PA →GS →Actions)

¹² Performance Avoid → Actions = (PAV→GD→Actions) + (PAV →GS →Actions)

¹³ Mastery Approach → External success = [(MA→GD→Actions) + (MA →GS →Actions)][Actions → External success]

¹⁴ Performance Approach → External success = [(PA→GD→Actions) + (PA →GS →Actions)][Actions → External success]

¹⁵ Performance Avoid → External success = [(PAV→GD→Actions) + (PAV →GS →Actions)][Actions → External success]

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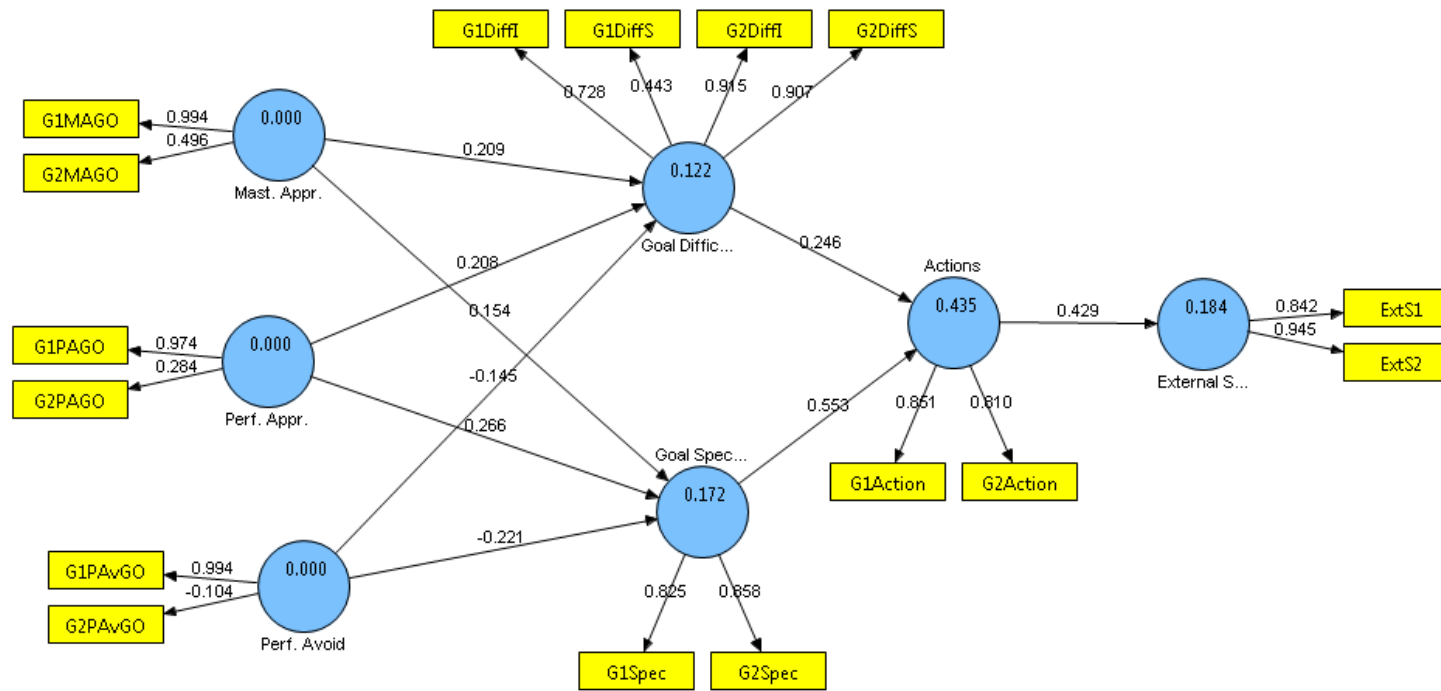


Figure A8.8.iii. Original PLS output for the model investigating the direct relationships between goal orientations, goal-setting, actions, and external success.

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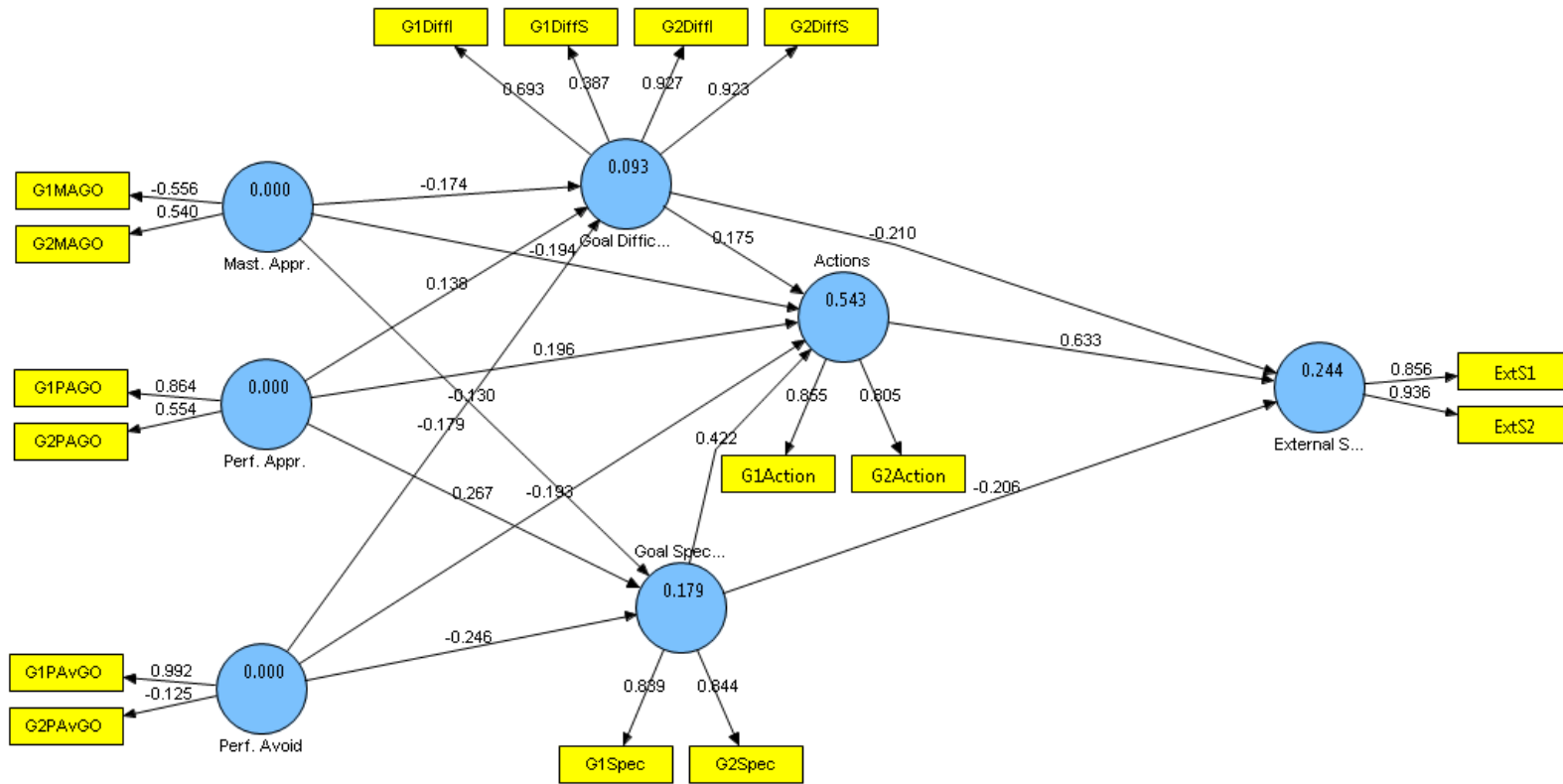


Figure A8.8.iv. Original PLS output for the model investigating the direct and indirect relationships between goal orientations, goal-setting, actions, and external success.

APPENDICES PERTAINING TO CHAPTER 9

Appendix 9.1: Model estimating the direct effects of entrepreneurial orientations and personal initiative on success.

Prior to investigating the structural relationship between entrepreneurial orientations, personal initiative and success (objective and self-perceptions), the measurement model was examined. Table A9.1.i outlines the factor loadings, composite scale reliability and AVE for each of the variables. In relation to self-perceptions of success, the AVE was above the required cut-off of 0.5, the composite reliability was 0.818 which was again above the required cut-off, and each of the three items loaded quite well on the latent variable. With regard to Personal Initiative, the AVE was a little below the 0.5 cut-off criteria at 0.443, but the composite reliability was high at 0.847. The majority of the factor loadings were in the .60 to .75 range, which is a little below the required level of 0.7. Overall, however, the measurement for this variable is close to the recommended guidelines.

Table A9.1.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.533	0.325	0.662	0.291
	AutO	0.645	0.399		
	CAGg	0.372	0.163		
	IO	0.581	0.211		
	LO	0.754	0.514		
	RTrs	0.003	-0.186		
Personal Initiative	PI1	0.606	0.094	0.847	0.443
	PI2	0.688	0.138		
	PI3	0.678	0.195		
	PI4	0.701	0.196		
	PI5	0.746	0.389		
	PI6	0.616	0.235		
	PI7	0.612	0.235		
Objective Success	ObjSucc	1.00	1.00	1.00	1.00
Self-Perceptions of Success	SelfSucc1	0.907	0.637	0.818	0.605
	SelfSucc2	0.761	0.353		
	SelfSucc3	0.642	0.239		

The AVE for Entrepreneurial Orientations was quite low at 0.291, but the composite reliability was adequate at 0.662. However, only one of the indicators (Learning Orientations) loaded above 0.7 with most others between 0.5 and 0.7. However, the Risk-Taking indicator loaded extremely low on its LV. Removing the Risk-Taking indicator did increase both the AVE and the composite reliability, but did not increase the AVE to a value above the recommended 0.5. However, as outlined in chapter 10, section 2, the CFA for this variable suggested that all the paths between the indicators and the latent variable were significant. Hence, the EO construct was not changed, and it was deemed appropriate to retain the Risk-Taking indicator.

Moving to address issues of discriminant validity, Table A9.1.ii and A9.1.iii outline the latent variable correlations and cross-loadings. The Fornell-Larcker criterion is met, as the square root of the AVE is higher than any of the correlations between the latent variables. With regard to the cross-loadings, the indicators for Self-Perceptions of Success and Personal Initiative load more highly on their own LV than on any other. With regard to Entrepreneurial Orientations, all the indicators load more highly on their own LV than any other, with the exception of the Risk-Taking variable, which is likely due to its extremely low loading on its own LV as identified above.

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Table A9.1.ii Latent variable correlations (entrepreneurial orientations, personal initiative, objective success and self-perceptions of success).

	1.	2.	3.	4.
1. Entrepreneurial Orientations	0.539			
2. Objective Success	0.242	1.000		
3. Personal Initiative	0.307	0.122	0.666	
4. Self-Perceptions of Success	0.329	0.322	0.469	0.777

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Moving to consider the structural model, entrepreneurial orientations and personal initiative combined explained 25.7% of the variance in self-perceptions of success and 6.1% of the variance in objective success, which are indicative of large and small-medium effects respectively (see Table A9.1.iv). Both types of Q^2 are above zero for each type of success, indicating that the model overall has predictive relevance.

Table A9.1.iii Cross loadings of indicators (entrepreneurial orientations, personal initiative, objective success and self-perceptions of success).

	EO	Objective Success	PI	Self-Perceptions of Success
AOtot	0.533	0.186	0.339	0.123
AutOTot	0.645	0.059	0.192	0.276
CAgg	0.372	-0.061	0.303	0.176
IOTot	0.581	0.229	0.166	0.001
LOTot	0.754	0.210	0.153	0.257
RTTotRS	0.003	-0.065	0.227	-0.101
ObjSucc5	0.242	1.00	0.122	0.322
PI1	0.126	-0.056	0.606	0.143
PI2	0.225	-0.078	0.688	0.209
PI3	0.184	-0.034	0.678	0.276
PI4	0.137	0.022	0.701	0.263
PI5	0.340	0.294	0.746	0.456
PI6	0.180	0.131	0.620	0.286
PI7	0.123	-0.020	0.612	0.326
SelfS1	0.317	0.315	0.528	0.907
SelfS2	0.281	0.271	0.240	0.761
SelfS3	0.119	0.105	0.199	0.642

Table A9.1.iv. Estimation of the structural model (entrepreneurial orientations, personal initiative, objective success and self-perceptions of success).

	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
Objective Success	0.061	Small-medium	1.00	0.132
Self-Perceptions of Success	0.257	Large	0.541	0.009

Looking at the individual path coefficients (see Table A9.1.v and Figure A9.1.i), the only significant path was from personal initiative to self-perceptions of success. The effect size calculation indicates that personal initiative has a medium effect of self-perceptions of success. Although the other paths were non-

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significant the effect size calculations indicated that entrepreneurial orientations had a small effect on both objective success and self-perceptions of success. Given the power calculation for the present sample, it is likely that such small effects would become significant in a large sample. The original PLS output can be found in Figure A9.1.ii.

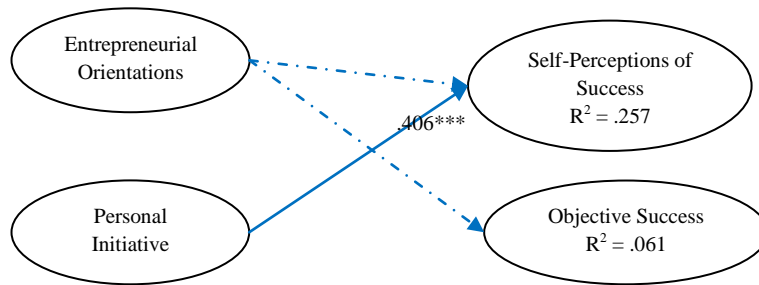


Figure A9.1.i. Results of Partial Least Squares analysis for the model investigating the relationships between entrepreneurial orientations, personal initiative, objective success and self-perceptions of success. (***) $p < .001$; ** $p < .01$; * $p < .05$; dashed lined indicate non-significant paths).

Table A9.1.v. Statistical results for Path Coefficients (entrepreneurial orientations, personal initiative, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial Orientations → Objective Success	0.226	1.24	0.183	0.183	-.133; .585	.050	Small
Entrepreneurial Orientations → Self-Perceptions of Success	0.204	1.20	0.171	0.171	-.131; .539	.043	Small
Personal Initiative → Objective Success	0.053	0.369	0.143	0.143	-.227; .333	.002	Negligible
Personal Initiative → Self-Perceptions of Success	0.406***	3.36	0.121	0.121	.169; .643	.198	Medium

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

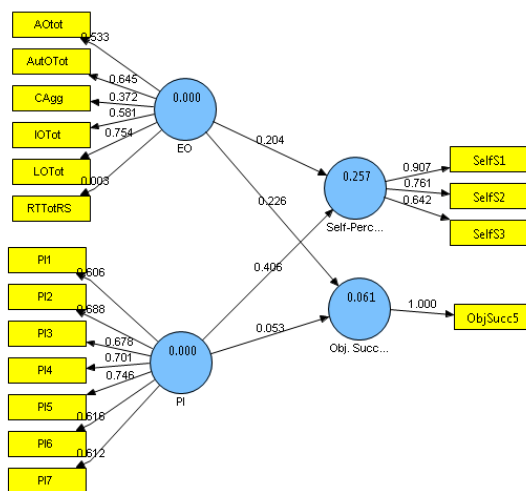


Figure A9.1.ii. Original PLS output for the model examining the direct effects of entrepreneurial orientations and personal initiative on objective success and self-perceptions of success.

Appendix 9.2: Model estimating the direct effects of entrepreneurial orientations and personal initiative on work engagement.

Before looking at the structural model, which investigated the direct effects of entrepreneurial orientations and personal initiative on work engagement, the measurement model was assessed (see Table A9.2.i). Looking firstly at work engagement, the AVE was 0.773, the composite reliability was 0.911, and the factor loadings were all above 0.80. Hence, there were no issues with measurement of this variable. Moving to examine personal initiative, while the composite reliability was good at 0.854, the AVE was a little below 0.5 at 0.458. In relation to the factor loadings, three of the seven indicators loaded above 0.7, with three others slightly below, in region of 0.64 to 0.69. However, one indicator loaded at 0.523. Hence, the measurement of personal initiative was suboptimal. In relation to entrepreneurial orientations, again, although the composite reliability was above 0.7, the AVE was quite low at 0.321. The factor loadings were in the range of 0.43 to 0.66, which are below the recommended. However, as reported previously, when a CFA was conducted on this variable, the path coefficients for all of the indicators were significant.

Moving to examine the discriminant validity (see Table A9.2.ii and iii), the square root of the AVE was higher than any of the correlations between the latent variables, indicating that their measurement was distinct. None of the individual indicators loaded more highly on another latent variable than on their own, which provides a second method for checking the discriminant validity.

Table A9.2.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.656	0.391	0.735	0.321
	AutO	0.429	0.151		
	CAGg	0.621	0.348		
	IO	0.599	0.242		
	LO	0.478	0.230		
	RTrs	0.581	0.359		
Personal Initiative	PI1	0.704	0.182	0.854	0.458
	PI2	0.769	0.238		
	PI3	0.681	0.163		
	PI4	0.723	0.199		
	PI5	0.646	0.244		
	PI6	0.666	0.320		
	PI7	0.523	0.122		
Work Engagement	Vigor	0.921	0.419	0.911	0.773
	Absorption	0.844	0.291		
	Dedication	0.871	0.423		

Table A9.2.ii Latent variable correlations (entrepreneurial orientations, personal initiative, and work engagement).

	1.	2.	3.
1. Entrepreneurial Orientations	0.566		
2. Personal Initiative	0.417	0.677	
3. Work Engagement	0.375	0.507	0.879

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A9.2.iii Cross loadings of indicators (entrepreneurial orientations, personal initiative, and work engagement).

	Entrepreneurial Orientations	Personal Initiative	Work Engagement
AOtot	0.656	0.334	0.273
AutOTot	0.429	0.196	0.106
CAgg	0.621	0.267	0.243
IOTot	0.599	0.163	0.169
LOTot	0.478	0.140	0.161
RTTotRS	0.581	0.259	0.251
PI1	0.353	0.704	0.278
PI2	0.345	0.769	0.363
PI3	0.176	0.681	0.248
PI4	0.237	0.723	0.303
PI5	0.405	0.646	0.372
PI6	0.214	0.666	0.489
PI7	0.230	0.523	0.186
Absorption	0.282	0.321	0.844
Dedication	0.318	0.509	0.871
Vigor	0.379	0.474	0.921

Moving to the structural model, entrepreneurial orientations and personal initiative had a large effect on work engagement, explaining 29% of the variance in total, and the model had predictive relevance as the Q^2 values were above zero (see Table A9.2.iv).

Table A9.2.iv. Estimation of the structural model (entrepreneurial orientations, personal initiative, and work engagement).

	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
Work Engagement	0.290	Large	0.743	0.248

Figure A9.2.i and Table A9.2.v outline the results of the specific paths. Both entrepreneurial orientations and personal initiative had a significant effect on work engagement. However, while personal initiative had a medium-large effect on work engagement, entrepreneurial orientations only had a small effect. The confidence interval for entrepreneurial orientations also included zero, suggesting that this result should be cautiously interpreted.

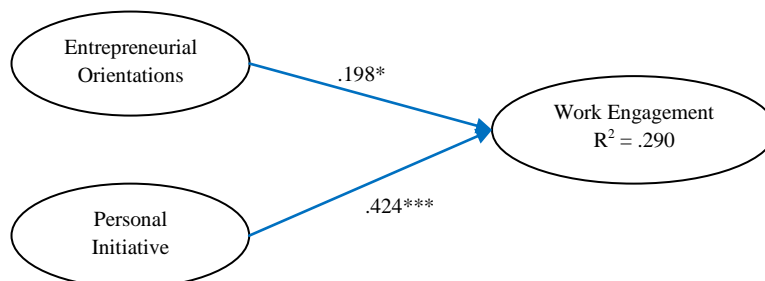


Figure A9.2.i. Results of Partial Least Squares analysis for the model investigating the relationships between entrepreneurial orientations, personal initiative, and work engagement. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; dashed lined indicate non-significant paths).

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Table A9.2.v. Statistical results for Path Coefficients (entrepreneurial orientations, personal initiative, and work engagement).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial Orientations → Work Engagement	.198*	1.85	0.108	0.108	-.014; .410	.044	Small
Personal Initiative → Work Engagement	.424***	4.27	0.099	0.099	.230; .618	.210	Medium-large

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

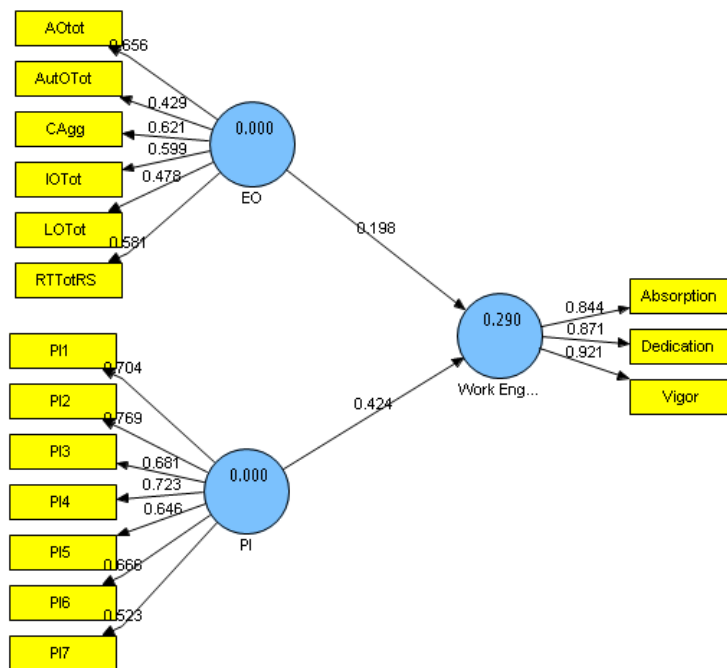


Figure A9.2.ii. Original PLS output for the model examining the direct effects of entrepreneurial orientations and personal initiative on work engagement.

Appendix 9.3: Model estimating the direct effects of entrepreneurial and creative self-efficacy on success.

The focus of the analysis in this section relates to the direct effects of entrepreneurial self-efficacy and creative self-efficacy on objective success and self-perceptions of success. Firstly, looking at the measurement model (see Table A9.3.i), the AVE and composite reliability were all above the recommended criteria (0.5 and 0.7 respectively) for each of the variables. Looking at the factor loadings, two of those for self-perceptions of success were above 0.7, while the third was 0.661. In relation to the six indicators of entrepreneurial self-efficacy, four were above the recommended 0.7, while the other two were slightly below at 0.668 and 0.641. Of the three creative self-efficacy indicators, one loaded very highly at .936, which the other two were somewhat below the criterion at 0.608 and 0.578. Hence, although a number of the factor loadings were a little low, overall there were few issues with the measurement model.

Table A9.3.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial self-efficacy	ESE1	0.668	0.170	0.893	0.586
	ESE2	0.826	0.230		
	ESE3	0.723	0.208		
	ESE4	0.881	0.258		
	ESE5	0.641	0.155		
	ESE6	0.822	0.267		
Creative self-efficacy	CSE1	0.578	0.261	0.760	0.527
	CSE2	0.608	0.166		
	CSE3	0.936	0.799		
Objective success	ObjSucc	1.00	1.00	1.00	1.00
Self-perceptions of success	SelfS1	0.850	0.512	0.826	0.615
	SelfS2	0.828	0.473		
	SelfS3	0.661	0.262		

Table A9.3.ii outlines the latent variable correlations. The Fornell-Larker criterion is met, as none of the correlations are higher than the square root of the AVE for each of the LVs. Table A9.3.iii highlights the cross-loadings for the measurement model. All of the indicators load most highly on their own LV, although ESE1 also loads quite highly on creative self-efficacy, in addition to entrepreneurial self-efficacy. Overall, however, discriminant validity is evident.

Table A9.3.ii. Latent variable correlations (entrepreneurial self-efficacy, creative-self efficacy, objective success and self-perceptions of success).

	1.	2.	3.	4.
1. Creative Self Efficacy	0.726			
2. Entrepreneurial Self Efficacy	0.457	0.765		
3. Objective Success	0.225	0.081	1.000	
4. Self-perceptions of success	0.196	0.483	0.317	0.784

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A9.3.iii. Cross loadings of indicators (entrepreneurial self-efficacy, creative self-efficacy, objective success and self-perceptions of success).

	CSE	ESE	Objective Success	Self-perceptions of success
CSE1	0.578	0.450	-0.011	0.175
CSE2	0.608	0.456	-0.032	0.140
CSE3	0.936	0.330	0.292	0.159
ESE1	0.619	0.668	0.046	0.287
ESE2	0.337	0.826	0.010	0.396
ESE3	0.303	0.723	0.123	0.340
ESE4	0.350	0.881	0.019	0.444
ESE5	0.255	0.641	0.049	0.260
ESE6	0.305	0.822	0.122	0.442
ObjSucc5	0.225	0.081	1.00	0.317
SelfS1	0.180	0.446	0.315	0.850
SelfS2	0.181	0.413	0.271	0.828
SelfS3	0.068	0.227	0.105	0.661

Moving to examine the structural model, the two types of self-efficacy (entrepreneurial and creative) in total explained 23.4% of the variance in self-perceptions of success (an effect which is approaching the large range) and explained 5.1% of the variance in objective success (a small effect). The Q^2 estimations indicate that the model had predictive relevance (see Table A9.3.iv).

Table A9.3.iv. Estimation of the structural model (entrepreneurial self-efficacy, creative self-efficacy, objective success and self-perceptions of success).

	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
Objective Success	0.051	Small	1.00	.111
Self-Perceptions of Success	0.234	Large	.669	.164

Looking at the significance of the individual paths (see Table A9.3.v and Figure A9.3.i), entrepreneurial self-efficacy had a large positive effect on self-perceptions of success. While none of the other paths reached significance, the results showed that creative self-efficacy had a small effect on objective success also. Given that the present sample is not powerful enough to detect small effects, it is likely that this path may be significant with a larger sample.

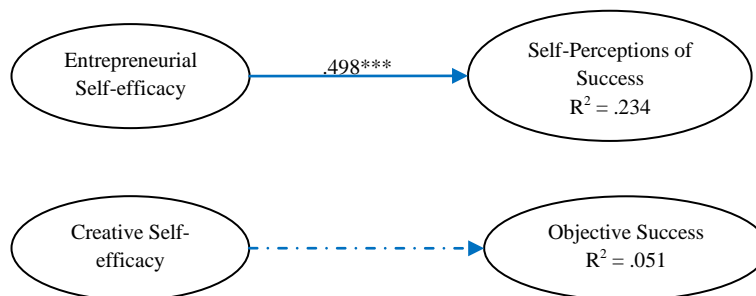


Figure A9.1.i. Results of Partial Least Squares analysis for the model investigating the relationships between entrepreneurial and creative self-efficacy, objective success and self-perceptions of success. (***) $p < .001$; (***) $p < .01$; * $p < .05$; dashed lined indicate non-significant paths).

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Table A9.3.v. Statistical results for Path Coefficients (entrepreneurial self-efficacy, creative self-efficacy, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial self-efficacy → Objective Success	-.028	.194	.145	.145	-.312; .256	.013	Negligible
Entrepreneurial self-efficacy → Self-Perceptions of Success	.498***	4.59	.108	.108	.286; .710	.244	Large
Creative self-efficacy → Objective Success	.238	.978	.244	.244	-.240; .716	.046	Small
Creative self-efficacy → Self-Perceptions of Success	-.032	.221	.144	.144	-.314; .250	0.00	None

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

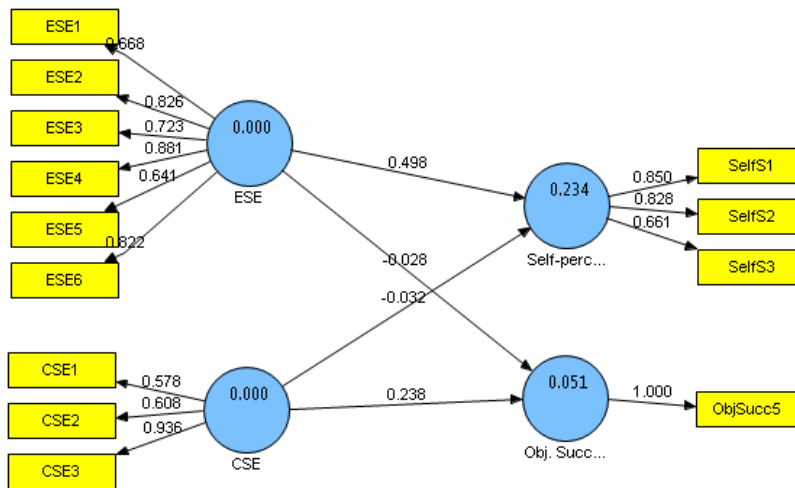


Figure A9.3.ii. Original PLS output for the model examining the direct effects of entrepreneurial self-efficacy and creative self-efficacy on objective success and self-perceptions of success.

Appendix 9.4: Model investigating the direct and indirect effects of the motivational and volitional resources on objective success and self-perceptions of success

Table A9.4.i. Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.671	0.389	0.721	0.310
	AutO	0.534	0.301		
	CAGg	0.687	0.449		
	IO	0.501	0.169		
	LO	0.344	0.079		
	RTrs	0.534	0.296		
Personal Initiative	PI1	0.693	0.194	0.856	0.460
	PI2	0.762	0.207		
	PI3	0.685	0.177		
	PI4	0.711	0.165		
	PI5	0.660	0.267		
	PI6	0.590	0.209		
	PI7	0.634	0.267		
Entrepreneurial Self-efficacy	ESE1	0.746	0.281	0.893	0.582
	ESE2	0.779	0.180		
	ESE3	0.715	0.196		
	ESE4	0.863	0.240		
	ESE5	0.709	0.241		
	ESE6	0.754	0.176		
Creative Self-efficacy	CSE1	0.828	0.489	0.818	0.603
	CSE2	0.840	0.448		
	CSE3	0.646	0.339		
Work Engagement	Absorption	0.834	0.264	0.910	0.772
	Dedication	0.876	0.433		
	Vigor	0.923	0.434		
Objective Success	ObjSucc	1.00	1.00	1.00	1.00
Self-Perceptions of Success	SelfSucc1	0.947	0.787	0.784	0.558
	SelfSucc2	0.563	0.041		
	SelfSucc3	0.680	0.342		

Table A9.4.ii Average Variance Extracted by constructs and correlations between constructs to assess Convergent and Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.
1. Creative Self-Efficacy	0.776						
2. Entrepreneurial Orientations	0.415	0.557					
3. Entrepreneurial Self-Efficacy	0.576	0.504	0.763				
4. Objective Success	0.079	0.099	0.076	1.000			
5. Personal Initiative	0.505	0.432	0.612	0.071	0.678		
6. Self-perceptions of success	0.175	0.178	0.439	0.295	0.454	0.747	
7. Work Engagement	0.355	0.365	0.562	0.004	0.478	0.267	0.878

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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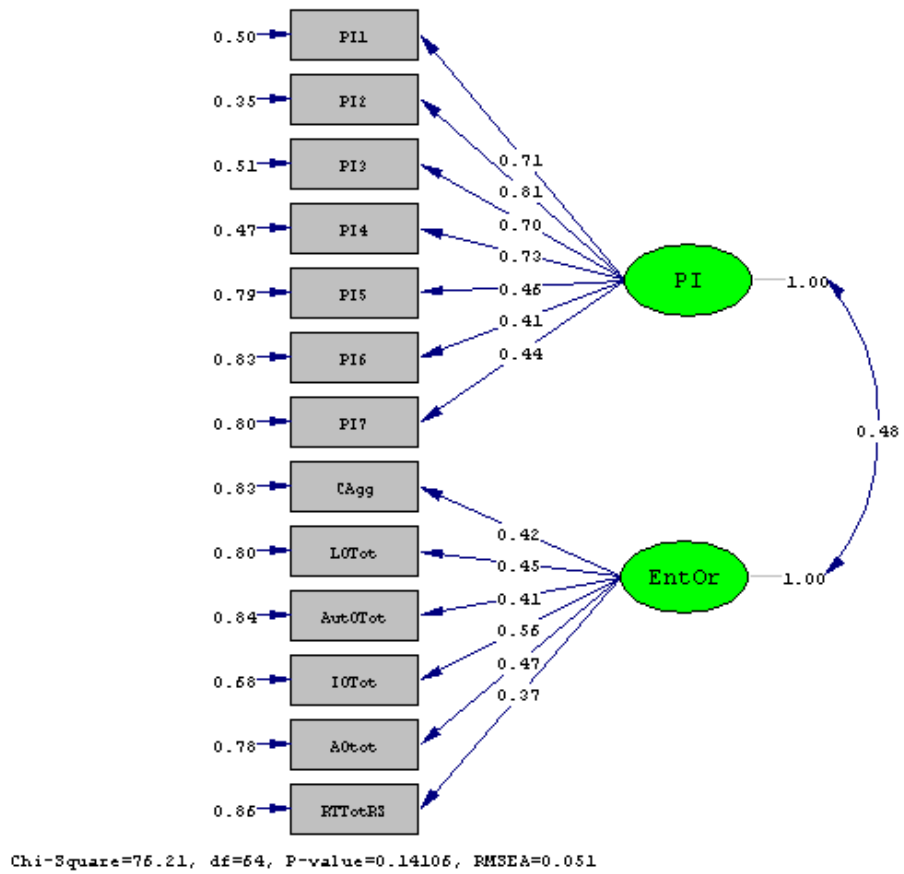


Figure A9.4.i CFA for Entrepreneurial Orientations and Personal Initiative (standardised solution shown, all paths are significant).

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Table A9.4.iii. Cross-loadings for measurement model

	CSE	EO	ESE	Objective Success	PI	Self-perceptions of success	Work Engagement
CSE1	0.828	0.386	0.485	-0.011	0.422	0.135	0.325
CSE2	0.840	0.265	0.486	-0.032	0.487	0.133	0.246
CSE3	0.646	0.317	0.357	0.292	0.238	0.144	0.252
AOtot	0.229	0.671	0.393	0.186	0.329	0.120	0.273
AutOTot	0.107	0.534	0.362	0.059	0.180	0.225	0.110
CAgg	0.364	0.687	0.371	-0.061	0.300	0.163	0.246
IOTot	0.262	0.501	0.036	0.229	0.168	-0.055	0.169
LOTot	0.148	0.344	-0.004	0.210	0.138	0.279	0.159
RTTotRS	0.251	0.534	0.236	-0.065	0.256	-0.077	0.253
ESE1	0.694	0.503	0.746	0.046	0.561	0.263	0.537
ESE2	0.403	0.254	0.779	0.010	0.363	0.351	0.377
ESE3	0.305	0.432	0.715	0.123	0.446	0.340	0.286
ESE4	0.415	0.394	0.863	0.019	0.496	0.390	0.461
ESE5	0.339	0.310	0.709	0.049	0.457	0.315	0.546
ESE6	0.384	0.360	0.754	0.122	0.415	0.375	0.257
ObjSucc5	0.079	0.099	0.076	1.00	0.071	0.295	0.004
PI1	0.296	0.352	0.369	-0.056	0.693	0.171	0.279
PI2	0.327	0.344	0.384	-0.078	0.762	0.219	0.368
PI3	0.280	0.175	0.330	-0.034	0.685	0.335	0.252
PI4	0.285	0.201	0.285	0.022	0.711	0.315	0.305
PI5	0.354	0.426	0.553	0.294	0.660	0.474	0.374
PI6	0.284	0.236	0.427	0.131	0.590	0.287	0.489
PI7	0.486	0.242	0.444	-0.020	0.634	0.292	0.189
SelfS1	0.220	0.255	0.447	0.315	0.490	0.947	0.285
SelfS2	0.200	0.166	0.384	0.271	0.222	0.563	0.015
SelfS3	-0.020	-0.087	0.209	0.105	0.173	0.680	0.124
Absorption	0.296	0.241	0.336	0.003	0.281	0.138	0.834
Dedication	0.323	0.330	0.560	-0.037	0.496	0.236	0.876
Vigor	0.315	0.366	0.532	0.045	0.436	0.296	0.923

Table A9.4.iv Estimation of the structural model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, objective success and self-perceptions of success).

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Entrepreneurial self-efficacy	0.446	Large	.704	.325	0.424	Large	.707	.310
Creative self-efficacy	0.303	Large	.702	.279	0.294	Large	.710	.265
Work Engagement	0.317	Large	.764	.140	0.351	Large	.759	.063
Objective success	0.000	None	1.00	-.041	0.025	Small	1.00	.060
Self-perceptions of success	0.071	Small	.652	-.105	0.275	Large	.608	.162

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Table A9.4.v Statistical results for Path Coefficients in direct effects only model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	0.242*	2.04	0.119	0.119	.009; .475	.062	Small
Entrepreneurial orientations → entrepreneurial self-efficacy	0.295**	2.77	0.106	0.106	.087; .503	.132	Small-Medium
Personal Initiative →Creative self-efficacy	0.401**	3.20	0.125	0.125	.156; .646	.174	Medium
Personal initiative →entrepreneurial self-efficacy	0.485***	4.89	0.099	0.099	.291; .679	.354	Large
Creative self-efficacy → work engagement	0.046	0.398	0.116	0.116	-.181; .273	0.00	None
Entrepreneurial self-efficacy → Work engagement	0.536***	5.51	0.097	0.097	.346; .726	.281	Medium-Large
Work engagement →self-perceptions of success	0.267	1.46	0.183	0.183	-.092; .626	N/A	Only predictor
Work engagement → objective success	0.004	0.040	0.103	0.103	-.198; .206	N/A	Only predictor

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table A9.4.vi Statistical results for Path Coefficients in fully specified model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	.247*	1.97	0.126	0.126	0.00; .247	.064	Small
Entrepreneurial orientations → entrepreneurial self-efficacy	.259*	2.25	0.115	0.115	-.035; .553	.099	Small-Medium
Entrepreneurial orientations → work engagement	.092	0.692	0.134	0.134	-.171; .354	.008	Negligible
Entrepreneurial orientations →objective success	.121	0.670	0.181	0.181	-.233; .476	.012	Very small
Entrepreneurial orientations→ self-perceptions of success	-.020	0.110	0.181	0.181	-.375; .335	-.001	Negligible
Personal Initiative →Creative self-efficacy	.389**	2.93	0.133	0.133	.128; .650	.161	Medium
Personal initiative →entrepreneurial self-efficacy	.498***	4.81	0.104	0.104	.294; .702	.358	Large
Personal initiative → work engagement	.228	1.60	0.143	0.143	-.052; .508	-.006	Negligible
Personal initiative → objective success	.041	0.265	0.156	0.156	-.265; .347	-.003	Negligible
Personal initiative → self-perceptions of success	.277*	1.84	0.151	0.151	-.019; .573	.055	Small
Creative self-efficacy → work engagement	-.007	0.050	0.136	0.136	-.274; .260	.00	None
Creative self-efficacy →objective success	.041	0.248	0.165	0.165	-.282; .364	.001	Negligible
Creative self-efficacy →self-perceptions of success	-.143	0.975	0.147	0.147	-.431; .145	.011	Very small
Entrepreneurial self-efficacy → Work engagement	.375**	2.88	0.130	0.130	.120; .630	.112	Small-Medium
Entrepreneurial self-efficacy → objective success	.021	0.108	0.192	0.192	-.355; .397	-.009	Negligible
Entrepreneurial self-efficacy → self-perceptions of success	.470*	2.46	0.191	0.191	.096; .844	.098	Small-medium
Work engagement →self-perceptions of success	-.140	0.832	0.168	0.168	-.469; .189	.006	Negligible
Work engagement → objective success	-.088	0.596	0.147	0.147	-.376; .200	.006	Negligible

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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Table A9.4.vii Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on work engagement, via entrepreneurial self-efficacy and creative self-efficacy.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → WEng	.097	.109	.057	1.70*	.01; .23
EO → CSE → WEng	-.002	-.004	.041	.000	-.10; .08
PI → ESE → WEng	.187	.190	.081	2.31*	.06; .37
PI → CSE → WEng	-.003	-.120	.058	-.051	-.14; .09

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

Table A9.4.viii Test of the indirect effects of entrepreneurial self-efficacy and creative self-efficacy on objective success and self-perceptions of success, via work engagement.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
ESE → WEng → Obj. Success	-.033	-.040	.062	-.53	-.18; .07
ESE → WEng → Self-perceptions of success	-.053	-.058	.076	-.070	-.22; .08
CSE → WEng → Obj. Success	.001	.006	.023	.043	-.04; .07
CSE → WEng → Self-perceptions of success	.001	.003	.031	.032	-.06; .08

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

Table A9.4.ix Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on objective success and self-perceptions of success, via entrepreneurial self-efficacy, creative self-efficacy and work engagement.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → WEng → Obj. Success	-.014	-.011	.019	-.715	-.06; .02
EO → ESE → WEng → Self-perceptions of Success	-.009	-.017	.023	-.371	-.07; .02
EO → ESE → Obj. Success	.005	.008	.059	.092	-.12; .13
EO → ESE → Self-perceptions of Success	.122	.141	.090	1.35	.00; .34
EO → CSE → WEng → Obj. Success	.0003	.001	.007	.040	-.01; .02
EO → CSE → WEng → Self-perceptions of success	.0002	.001	.009	.020	-.02; .02
EO → CSE → Obj. Success	.010	.016	.049	.207	-.07; .13
EO → CSE → Self-perceptions of Success	-.035	-.040	.050	-.706	-.16; .04
PI → ESE → WEng → Obj. Success	-.026	-.019	.031	-.845	-.09; .04
PI → ESE → WEng → Self-perceptions of Success	-.016	-.028	.039	-.422	-.12; .05
PI → ESE → Obj. Success	.010	.009	.102	.103	-.22; .19
PI → ESE → Self-perceptions of Success	.234	.227	.100	2.34*	.02; .42
PI → CSE → WEng → Obj. Success	.0004	.002	.010	.042	-.01; .03
PI → CSE → WEng → Self-perceptions of success	.0003	.002	.014	.012	-.02; .03
PI → CSE → Obj. Success	.016	.012	.068	.235	-.13; .15
PI → CSE → Self-perceptions of Success	-.056	-.057	.064	-.869	-.20; .06

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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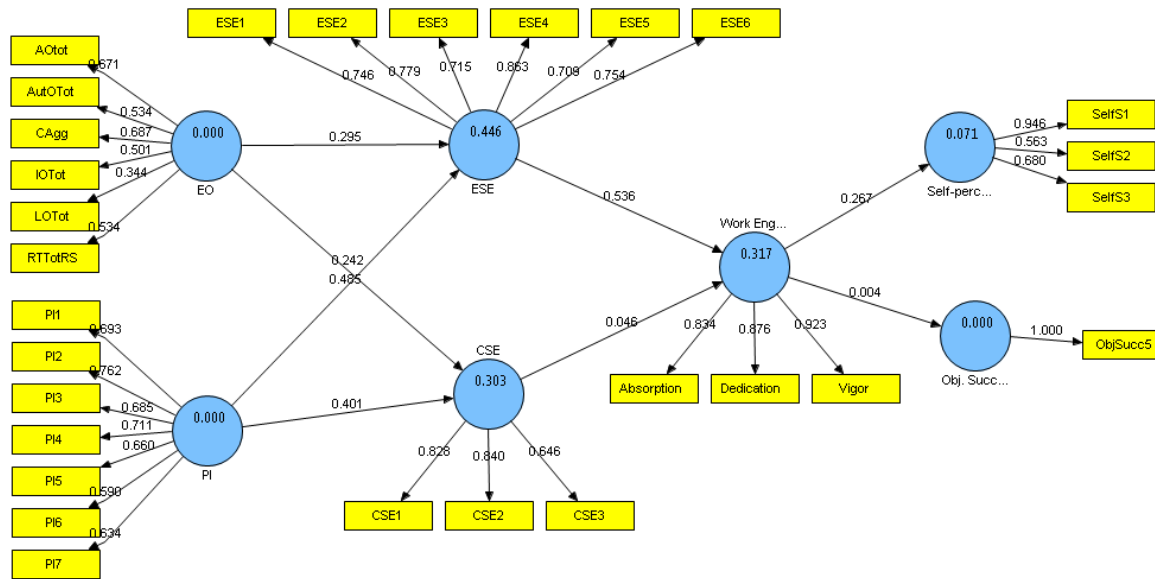


Figure A9.4.ii Original PLS output for the model specifying the direct effects between each sequential level of the model only (Entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, objective success and self-perceptions of success).

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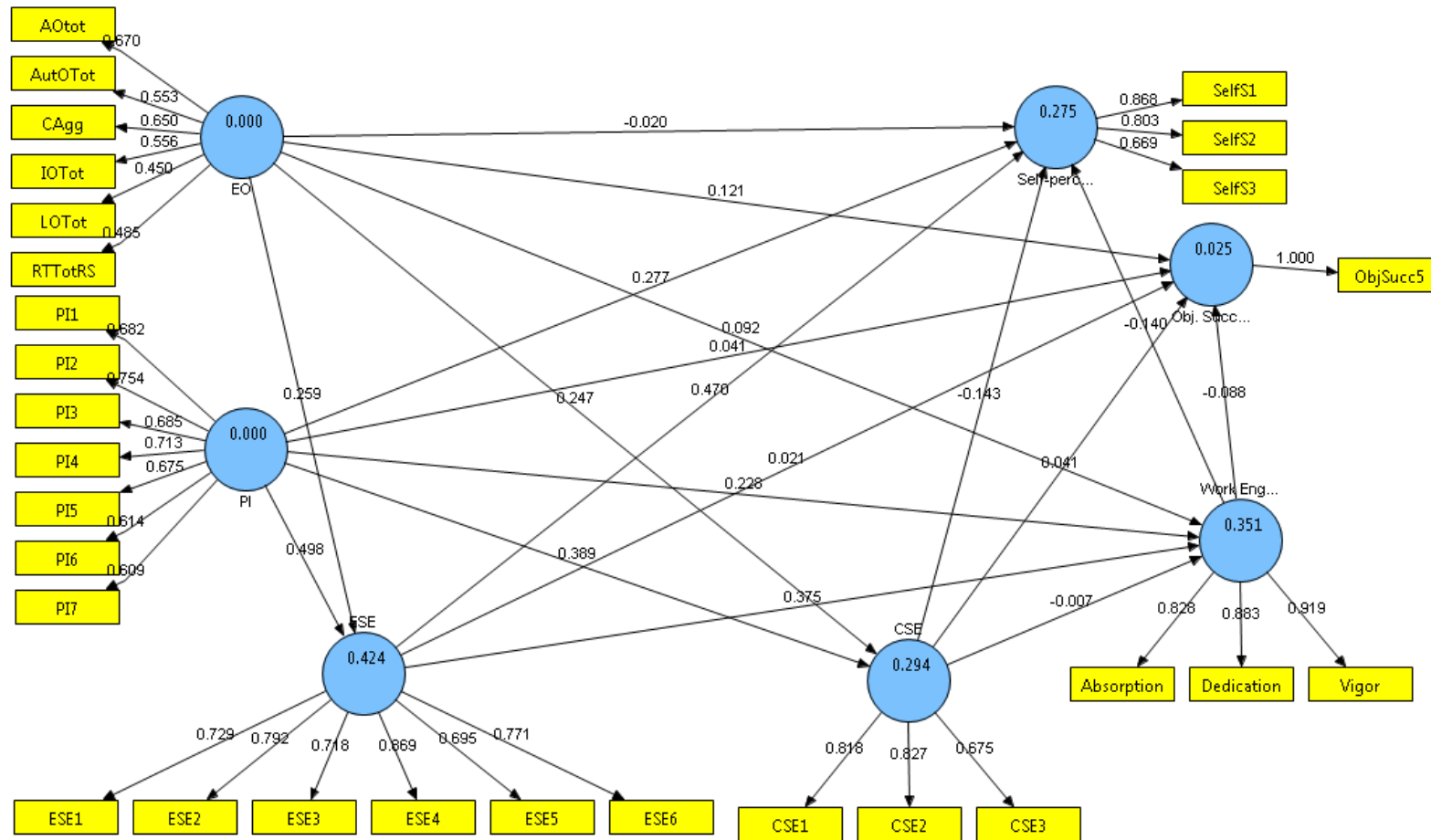


Figure A9.4.iii Original PLS output for the fully specified model (Entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, objective success and self-perceptions of success).

Appendix 9.5: Model estimating the direct effects of entrepreneurial orientations and personal initiative on external success

This model investigates the direct effects of entrepreneurial orientations and personal initiative on external success. Given that there was a reduced response rate for this variable, the sample size for this model is reduced to $N = 48$. This sample size is only sufficient to detect large effects in the present model which has a maximum of two arrows pointing to any given variable (Green, 1991).

Table A9.5.i outlines the factor loadings, composite scale reliability and AVE for each of the variables. The measurement of external success was good, with both the AVE and composite reliability between .80 and .90, and high factor loadings for the two individual indicators. However, the measurement components of both entrepreneurial orientations and personal initiative were quite poor, with both the AVE and the composite reliability between 0.1 and 0.2 for both variables. These low values are likely due to the fact that some of the items are loading negatively on each of the two latent variables. This is quite unusual, given that this did not occur in previous models, where all items loaded positively for each latent variable. One possible tentative explanation may be that the individual items are differentially predicting external success (the dependent variable), which because of the iterative nature of the PLS algorithm may be resulting in some negative factor loadings in this case.

Moving to assess the discriminant validity (see Tables A9.5.ii and iii), the latent variable correlations were below the square root of the AVEs as required, while the cross-loadings were largely unproblematic except in the case of one of the entrepreneurial orientations indicators (LO) which loaded more highly on personal initiative and two of the personal initiative indicators (PI3 and PI7), which loaded on entrepreneurial orientations. However, given the problems with the factor loadings outlined above, this is not surprising.

Table A9.5.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	-0.207	-0.400	0.123	0.161
	AutO	-0.443	-0.464		
	CAgg	0.254	0.154		
	IO	0.664	0.809		
	LO	0.113	-0.154		
	RTrs	0.460	0.334		
Personal Initiative	PI1	0.780	0.958	0.180	0.158
	PI2	0.463	0.019		
	PI3	0.096	-0.206		
	PI4	0.341	0.099		
	PI5	-0.056	0.109		
	PI6	-0.372	-0.557		
	PI7	-0.116	-0.244		
External Success	ExtSucc1	0.874	0.490	0.893	0.808
	ExtSucc2	0.923	0.620		

Despite the poor indicator values for entrepreneurial orientations and personal initiative, the structural model for this SEM model was evaluated in order to be able to assess the impact of the direct effects of both entrepreneurial orientations and personal initiative on external success, independently of the indirect effects.

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Table A9.5.ii Latent variable correlations (entrepreneurial orientations, personal initiative, and external success).

	1.	2.	3.
1. Entrepreneurial Orientations	0.401		
2. External Success	-0.254	0.899	
3. Personal Initiative	0.233	-0.346	0.397

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A9.5.iii Cross loadings of indicators (entrepreneurial orientations, personal initiative, and external success).

	Entrepreneurial Orientations	External Success	Personal Initiative
AOtot	-0.207	0.085	0.062
AutOTot	-0.443	0.099	-0.007
CAgg	0.254	-0.033	0.001
IOTot	0.664	-0.173	0.143
LOTot	0.113	0.033	-0.173
RTTotRS	0.460	-0.071	0.334
ExtS1	-0.113	0.874	-0.324
ExtS2	-0.320	0.923	-0.303
PI1	0.165	-0.245	0.780
PI2	0.115	-0.005	0.463
PI3	-0.154	0.053	0.096
PI4	0.221	-0.025	0.341
PI5	0.105	-0.028	-0.056
PI6	-0.095	0.143	-0.372
PI7	0.185	0.063	-0.116

Looking at the structural model, entrepreneurial orientations and personal initiative combined explained 15.1% of the variance in external success, which is a medium effect (see Table A9.5.iv). The cross-validated commonality Q^2 is above zero, but the cross validated redundancy Q^2 is not above zero, indicating that there is an issue with the predictive relevance of the model. This may be due to the reduced sample size however.

Table A9.5.iv. Estimation of the structural model (entrepreneurial orientations, personal initiative, objective success and self-perceptions of success).

	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
External Success	0.151	Medium	.850	.000

Both entrepreneurial orientations and personal initiative had a small effect on external success, but neither of the paths reached significant, which is likely due to the reduced sample size (see Table A9.5.v). Of note however, is that these effects were negative, which is in the opposite direction to that specified in the hypotheses, and that found for the other two forms of success. However, it is difficult to say whether this is an artefact of the measurement issues, or is a true effect. The original PLS output can be found in Figure A9.5.i.

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Table A9.5.v. Statistical results for Path Coefficients (entrepreneurial orientations, personal initiative and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial Orientations → External Success	-.183	.676	.270	.270	-.712; .346	.029	Small
Personal Initiative → External Success	-.304	.919	.330	.330	-.951; .343	.073	Small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

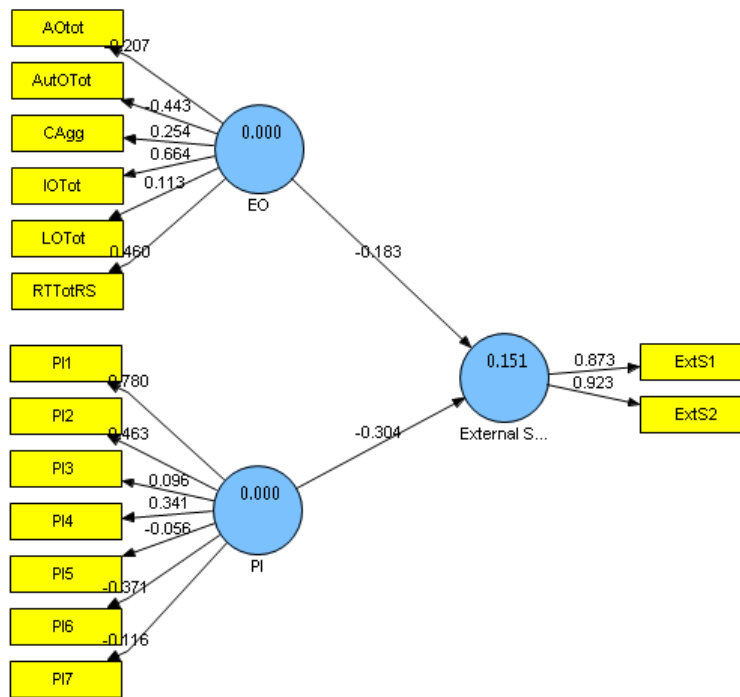


Figure A9.5.i. Original PLS output for the model examining the direct effects of entrepreneurial orientations and personal initiative on external success.

Appendix 9.6: Model estimating the direct effects of entrepreneurial self-efficacy and creative self-efficacy on external success

The focus of the analysis in this section relates to examining the direct effects of entrepreneurial self-efficacy and creative self-efficacy on external success. The sample size requirements are the same as that outlined in Appendix 9.5, and hence, the sample is sufficient to detect only large effects. Firstly, looking at the measurement model (see Table A9.6.i), the AVE and composite reliability were all above the recommended criteria (0.5 and 0.7 respectively) for each of the variables, except for the AVE of entrepreneurial self-efficacy, which was slightly below this at .420. This may be due to a very low factor loading on one of the indicators for this variable (ESE1). A number of the other indicators loaded somewhat lower than optimally for this variable also. For creative self-efficacy, two of the indicators loading above 0.8, while the third loaded at .565. Both of the external success loaded above the recommended level of 0.8.

Table A9.6.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial self-efficacy	ESE1	0.072	-0.184	.786	.420
	ESE2	0.771	0.283		
	ESE3	0.684	0.348		
	ESE4	0.637	-0.007		
	ESE5	0.525	0.153		
	ESE6	0.880	0.548		
Creative self-efficacy	CSE1	0.822	0.559	.787	.558
	CSE2	0.565	0.135		
	CSE3	0.825	0.564		
External success	ExtS1	0.922	0.617	.894	.808
	ExtS2	0.875	0.493		

Moving to the assessment of discriminant validity, the Fornell-Larcker criterion is met (see Table A9.6.ii) as the square root of the AVE is higher than any of the inter-correlations between the latent variables. As a second check on discriminant validity, all of the indicators load more highly on their own latent variable than on any other, with the exception of one of the indicators (ESE1) for entrepreneurial self-efficacy, which loads more highly on creative self-efficacy (see Table A9.6.iii). However, the loading for this item is problematic as outlined in the previous paragraph. Hence, although there are a number of small issues evident in the measurement of this model, overall it is reasonably adequate.

Table A9.6.ii Latent variable correlations (entrepreneurial self-efficacy, creative-self efficacy, external success).

	1.	2.	3.
1. Creative Self-Efficacy	0.747		
2. Entrepreneurial Self-Efficacy	0.191	0.648	
3. External Success	-0.114	0.295	0.899

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A9.6.iii Cross loadings of indicators (entrepreneurial self-efficacy, creative self-efficacy, external success).

	Creative Self-Efficacy	Entrepreneurial Self-Efficacy	External Success
CSE1	0.822	0.037	-0.097
CSE2	0.565	0.244	-0.024
CSE3	0.825	0.244	-0.010
ESE1	0.743	0.072	-0.098
ESE2	0.281	0.771	0.149
ESE3	0.268	0.684	0.184
ESE4	0.361	0.637	-0.003
ESE5	0.293	0.525	0.081
ESE6	0.206	0.880	0.290
ExtS1	-0.121	0.288	0.922
ExtS2	-0.081	0.238	0.875

Examining the structural model indicates that the two types of self-efficacy (entrepreneurial and creative) in total explained 10.7% of the variance in external success (a medium effect). The Q^2 estimations indicate that the model had predictive relevance (see Table A9.6.iv).

Table A9.6.iv. Estimation of the structural model (entrepreneurial self-efficacy, creative self-efficacy, external success).

	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
External Success	0.117	Medium	0.822	0.097

Looking at the significance of the individual paths (see Table A9.6.v), entrepreneurial self-efficacy had a small-medium effect on external success, while creative self-efficacy had a small effect. However, neither of these paths reached statistical significance. Given that the present sample is not powerful enough to detect small or medium effects, it is likely that these paths may be significant with a larger sample. However, of note is the fact that while entrepreneurial self-efficacy had a positive effect on external success, in line with expectations, creative self-efficacy had a negative effect, which contradicted that which was expected. The original PLS output is shown in Figure A9.6.i.

Table A9.6.v. Statistical results for Path Coefficients (entrepreneurial self-efficacy, creative self-efficacy, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial self-efficacy → External Success	.329	1.01	.326	.326	-.310; .968	.117	Small-medium
Creative self-efficacy → External Success	-.177	.944	.188	.188	-.545; .191	.034	Small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

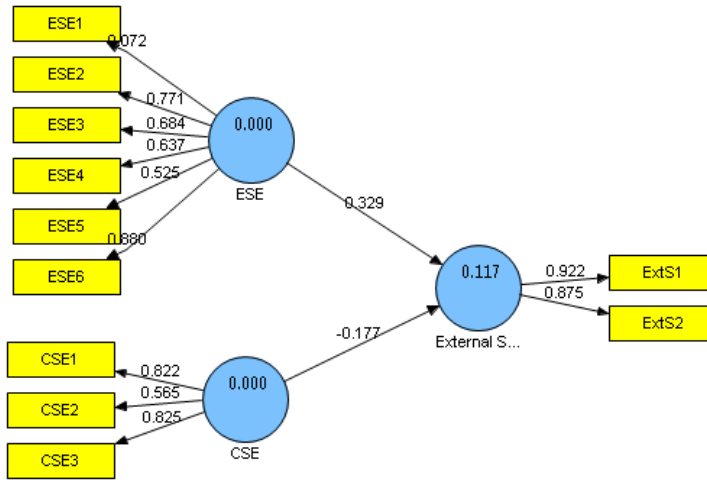


Figure A9.6.i. Original PLS output for the model examining the direct effects of entrepreneurial self-efficacy and creative self-efficacy on external success.

Appendix 9.7: Model estimating the direct and indirect effects of entrepreneurial orientations and personal initiative, entrepreneurial and creative self-efficacy and work engagement on external success

This model investigates the direct and indirect effects of the motivational and volitional resources on external success, and follows the same procedure as the model which investigated the effects of these variables on objective success and self-perceptions of success (see section 9.2 in chapter 9). As in section 9.2, two versions of the model were specified; one which specified only the direct paths between each sequential step in the model, and a second, the fully specified model, which included all the potential direct and indirect paths. Given that both measurement models were very similar, the assessment of the measurement model outlined below refers to first model above (direct effects only). Table A9.7.i presents a summary of the factor loadings, composite reliability and Average Variance Extracted for each latent variable. All of the reliabilities were above 0.6 indicating that the measures are reliable, and two of the AVE were above 0.5 (work engagement and creative self-efficacy), indicating more than 50% of the variance in the indicators are accounted for in each LV. The AVE for personal initiative was slightly below the recommended criterion of 0.5 at 0.454, as were the AVEs for entrepreneurial self-efficacy at .481 and external success at .443. The AVE for entrepreneurial orientations was somewhat lower at 0.362. The AVE results for personal initiative and entrepreneurial orientations are similar to those found in the analysis of the complete dataset. However, in this previous analysis, where the sample size was larger, the AVE for entrepreneurial self-efficacy was not an issue. Similarly, the AVE for external success in the previous analyses outlined in Appendices 9.5 and 9.6 was very high. Hence, these deviations were considered relatively minor.

Table A9.7.i. Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.709	0.361	0.763	0.362
	AutO	0.367	0.187		
	CAGg	0.647	0.259		
	IO	0.724	0.313		
	LO	0.646	0.262		
Personal Initiative	RTrs	0.414	0.272	0.852	0.454
	PI1	0.642	0.192		
	PI2	0.704	0.182		
	PI3	0.673	0.146		
	PI4	0.753	0.170		
	PI5	0.747	0.318		
	PI6	0.592	0.234		
Entrepreneurial Self-efficacy	PI7	0.587	0.249	0.846	0.481
	ESE1	0.634	0.334		
	ESE2	0.688	0.177		
	ESE3	0.595	0.200		
	ESE4	0.795	0.247		
	ESE5	0.753	0.321		
Creative Self-efficacy	ESE6	0.678	0.162	0.810	0.587
	CSE1	0.778	0.457		
	CSE2	0.767	0.433		
Work Engagement	CSE3	0.753	0.416	0.926	0.808
	Absorption	0.858	0.323		
	Dedication	0.909	0.376		
External Success	Vigor	0.927	0.411	0.542	0.443
	ExtSucc1	0.239	-0.527		
	ExtSucc2	0.911	1.24		

Looking at the factor loadings, all of the indicators for work engagement and creative self-efficacy were above 0.7. Only two of the factor loadings for entrepreneurial orientations were above 0.7 (AO and IO), with a further two slightly below at .647 and .646 (CAGg and LO respectively). The final two indicators were quite low and in the range of .36 to .42 (AutO and RT). Personal initiative had three indicators that were above 0.7, with two others above .6 and two above .58. For entrepreneurial self-efficacy, two indicators were above 0.7, two were above .675, one was at .634 and the final indicators loaded at .595. Finally, looking at external success, one of its two indicators loaded very highly, while the second loaded quite poorly. These issues with factor loadings may account for the problematic AVEs. To evaluate discriminant validity, the square root of the AVEs were compared with the correlations

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between the LVs (displayed in Table A9.7.ii). The AVEs are all larger than the square of the correlations between LVs, indicating that more variance is shared between the LV and its block of indicators than with any other LV- i.e. discriminant validity is evident. As a second check on discriminant validity the cross-loadings were examined (see Table A9.7.iii). With the exception of one of the entrepreneurial self-efficacy items, which also loaded on creative self-efficacy, all of the indicators loaded more highly on their own latent variable than on any other.

Table A9.7.ii. Average Variance Extracted by constructs and correlations between constructs to assess Convergent and Discriminant Validity.

	1.	2.	3.	4.	5.	6.
1. Creative Self-Efficacy	0.766					
2. Entrepreneurial Orientations	0.468	0.601				
3. Entrepreneurial Self-Efficacy	0.592	0.433	0.694			
4. External Success	-0.055	0.058	0.067	0.666		
5. Personal Initiative	0.441	0.447	0.534	-0.046	0.674	
6. Work Engagement	0.403	0.411	0.631	-0.048	0.558	0.899

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A9.7.iii. Cross-loadings for measurement model

	Creative Self-Efficacy	Entrepreneurial Orientations	Entrepreneurial Self-Efficacy	External Success	Personal Initiative	Work Engagement
CSE1	0.778	0.468	0.425	0.019	0.245	0.325
CSE2	0.767	0.191	0.463	-0.089	0.418	0.387
CSE3	0.753	0.414	0.477	-0.061	0.357	0.209
AOtot	0.282	0.709	0.412	0.193	0.397	0.399
AutOTot	0.131	0.367	0.231	0.219	0.033	-0.063
CAgg	0.259	0.647	0.234	-0.021	0.239	0.229
IOTot	0.422	0.724	0.166	-0.141	0.297	0.154
LOTot	0.325	0.646	0.169	0.075	0.328	0.236
RTTtotRS	0.213	0.414	0.309	-0.084	0.209	0.404
ESE1	0.722	0.559	0.634	0.051	0.448	0.520
ESE2	0.301	0.103	0.688	-0.122	0.181	0.387
ESE3	0.261	0.323	0.595	0.235	0.397	0.227
ESE4	0.363	0.253	0.795	-0.013	0.303	0.464
ESE5	0.368	0.188	0.753	-0.011	0.484	0.597
ESE6	0.233	0.246	0.678	0.195	0.261	0.231
ExtS1	-0.090	-0.070	0.092	0.239	0.025	0.014
ExtS2	-0.083	0.017	0.093	0.911	-0.027	-0.033
PI1	0.284	0.271	0.275	-0.150	0.642	0.364
PI2	0.282	0.333	0.251	-0.030	0.704	0.347
PI3	0.122	0.296	0.287	0.096	0.673	0.293
PI4	0.182	0.371	0.300	-0.115	0.753	0.381
PI5	0.395	0.382	0.517	-0.013	0.747	0.428
PI6	0.330	0.204	0.348	0.089	0.592	0.535
PI7	0.335	0.237	0.385	-0.093	0.587	0.225
Absorption	0.389	0.360	0.474	-0.181	0.466	0.858
Dedication	0.336	0.359	0.573	-0.066	0.492	0.909
Vigor	0.367	0.389	0.639	0.084	0.540	0.927

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Table A9.7.iv outlines the R^2 values and predictive relevance for both versions of the models. In the model specifying only the direct paths between each sequential step, 33.2% of the variance in entrepreneurial self-efficacy and 28.6% of the variance in creative self-efficacy were explained by entrepreneurial orientations and personal initiative. In turn, these two forms of self-efficacy explained 40% of the variance in work engagement and work engagement explained 2% of the variance in external success. Unsurprisingly, this version of the model did not demonstrate predictive relevance for external success, but did demonstrate predictive relevance for all other variables.

Table A9.7.iv. Estimation of the structural model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, and external success).

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
Entrepreneurial self-efficacy	.332	Large	.519	.084	.321	Large	.519	.085
Creative self-efficacy	.286	Large	.549	.145	.276	Large	.547	.129
Work Engagement	.400	Large	.879	.361	.486	Large	.879	.487
External success	.002	Negligible	-.031	-.102	.058	Small	.482	-.200

Looking at the fully specified model, entrepreneurial orientations and personal initiative explained slightly less of the variance in entrepreneurial self-efficacy and creative self-efficacy (32.1% and 27.6% respectively) in this model, but both effects were still large in size. Slightly more of the variance in work engagement was explained (48.6%) when the direct path from entrepreneurial orientations and personal initiative were included as well as the two forms of self-efficacy as predictors. Finally, this version of the model still demonstrated issues with the predictive relevance for external success, with the cross validated commonality Q^2 above zero, but the cross-validated redundancy Q^2 below zero.

Looking at the direct paths (see Table 9.7.a. and Figure 9.7.a.), both entrepreneurial orientations and personal initiative had a significant effect on creative self-efficacy, while personal initiative also predicted entrepreneurial orientations. Entrepreneurial self-efficacy had a significant effect on work engagement. However, the effects of creative self-efficacy on work engagement, and work engagement on self-perceptions of success and objective success were not significant.

In the fully specified model (see Table 9.6.b and Figure 9.3.b), these significant paths remained so. In addition, personal initiative had a significant direct effect on work engagement. The original PLS output for both versions of the model can be found in Appendix 10.4. These significant direct paths are in line with the direct effects models that are outlined in Appendices 9.1 through 9.3. However, in the fully specified model, personal initiative had a significant effect on work engagement. In the model including the larger sample ($N = 75$), entrepreneurial orientations also had a significant effect on entrepreneurial self-efficacy, but personal initiative did not have a direct effect on work engagement. However, in the fully specified model, nearly all the non-significant paths, except for those to external success, were small in magnitude, suggesting that they may be significant in a larger sample.

Given that none of the variables had a direct effect on external success, the indirect paths from the more distal variables through the more proximal ones were not calculated. Indirect effects from entrepreneurial orientations to work engagement, via entrepreneurial and creative self-efficacy were previously calculated in the full sample, and hence, were not re-calculated here.

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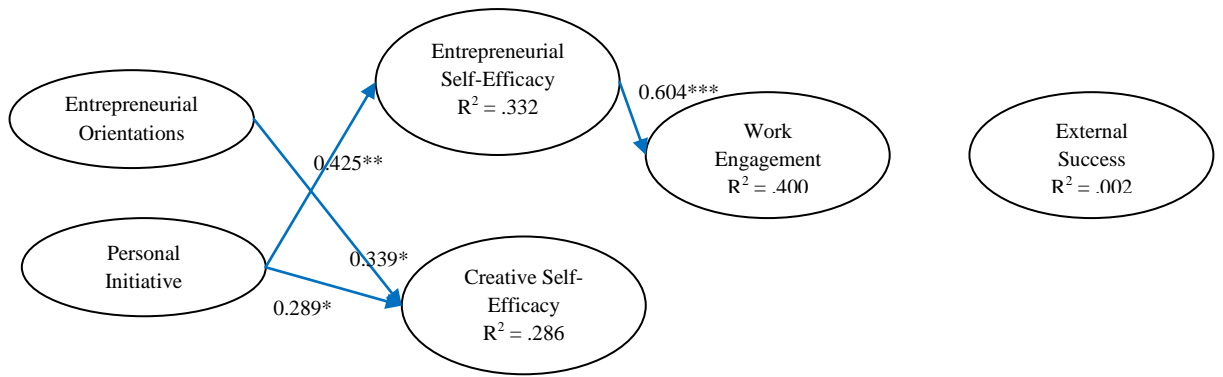


Figure A9.7.i. Results of Partial Least Squares analysis for the model investigating the relationships between entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, and external success. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; non-significant paths are not shown).

Table A9.7.vi. Statistical results for Path Coefficients in direct effects only model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	.339*	2.22	0.153	0.153	.039; .639	.112	Small-medium
Entrepreneurial orientations → entrepreneurial self-efficacy	.242	1.55	0.157	0.157	-.066; .550	.078	Small
Personal Initiative → Creative self-efficacy	.289*	1.83	0.158	0.158	-.021; .598	.064	Small
Personal initiative → entrepreneurial self-efficacy	.425**	2.91	0.146	0.146	.139; .711	.138	Small-medium
Creative self-efficacy → work engagement	.045	0.311	0.145	0.145	-.239; .329	.008	Negligible
Entrepreneurial self-efficacy → Work engagement	.604***	6.779	0.089	0.089	.430; .778	.39	Large
Work engagement → external success	-.048	0.232	0.208	0.208	-.456; .360	N/A	Only predictor

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

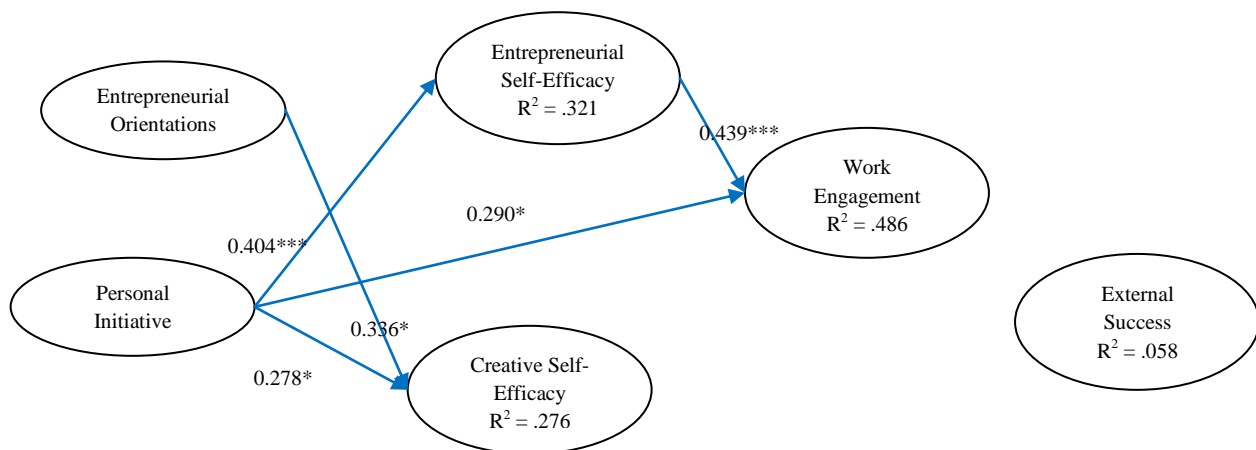


Figure A9.7.ii. Results of Partial Least Squares analysis for the model investigating the relationships between entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, and external success. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; non-significant paths are not shown).

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Table A9.7.vii. Statistical results for Path Coefficients in fully specified model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	.336*	2.08	0.162	0.162	.018; .654	.109	Small-medium
Entrepreneurial orientations → entrepreneurial self-efficacy	.253	1.51	0.168	0.168	-.076; .582	.080	Small
Entrepreneurial orientations → work engagement	.147	1.04	0.141	0.141	-.129; .423	.025	Small
Entrepreneurial orientations → external success	-.013	0.057	0.226	0.226	-.456; .430	.003	Negligible
Personal Initiative → Creative self-efficacy	.278*	1.67	0.167	0.167	-.049; .605	.062	Small
Personal initiative → entrepreneurial self-efficacy	.404**	2.69	0.150	0.150	.110; .698	.186	Medium
Personal initiative → work engagement	.290*	1.92	0.151	0.151	-.006; .586	.109	Small-medium
Personal initiative → external success	.002	0.009	0.257	0.257	-.502; .506	.00	None
Creative self-efficacy → work engagement	-.046	0.299	0.156	0.156	-.352; .260	-.012	Negligible
Creative self-efficacy → external success	-.232	0.992	0.234	0.234	-.691; .227	.035	Small
Entrepreneurial self-efficacy → Work engagement	.439***	3.73	0.117	0.117	.210; .668	.198	Medium
Entrepreneurial self-efficacy → external success	.320	0.986	0.324	0.324	-.315; .955	.048	Small
Work engagement → external success	-.115	0.455	0.252	0.252	-.609; .379	-.009	Negligible

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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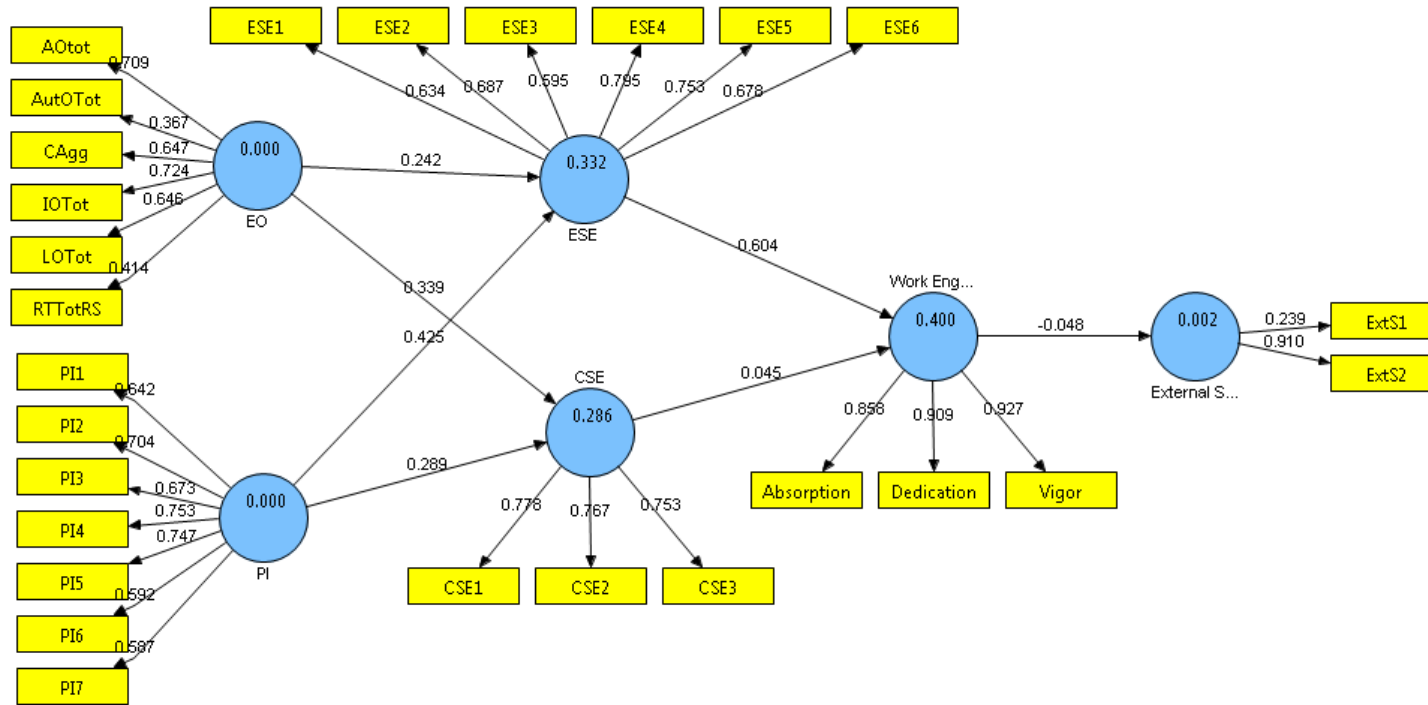


Figure A9.7.iii. Direct effects only model investigating Entrepreneurial orientations, Personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement and external success.

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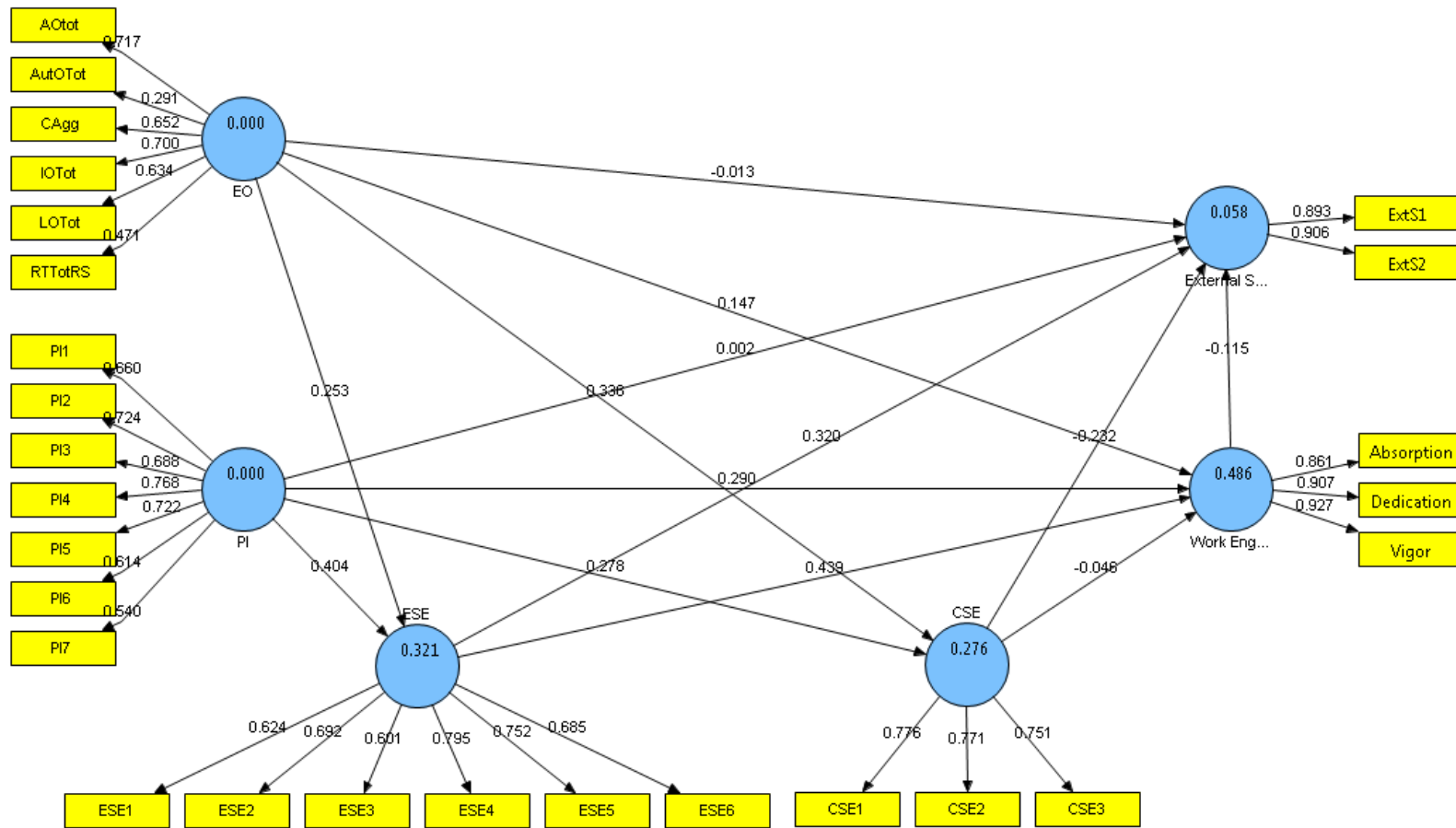


Figure A9.7.iv. Fully specified model investigating Entrepreneurial orientations, Personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement and external success.

Appendix 9.8: Model investigating the direct and indirect effects of motivational resources, volitional resources and cognition (with planning) on objective success and self-perceptions of success.

Table A9.8.i Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.673	0.392	0.719	0.308
	AutO	0.542	0.314		
	CAGg	0.690	0.453		
	IO	0.472	0.128		
	LO	0.345	0.093		
Personal Initiative	RTrs	0.534	0.302	0.855	0.460
	PI1	0.694	0.198		
	PI2	0.761	0.206		
	PI3	0.681	0.174		
	PI4	0.705	0.158		
	PI5	0.666	0.276		
	PI6	0.593	0.211		
Entrepreneurial Self-efficacy	PI7	0.632	0.264	0.893	0.582
	ESE1	0.745	0.279		
	ESE2	0.779	0.179		
	ESE3	0.717	0.200		
	ESE4	0.863	0.240		
	ESE5	0.705	0.236		
Creative Self-efficacy	ESE6	0.756	0.179	0.818	0.603
	CSE1	0.829	0.494		
	CSE2	0.835	0.438		
Work Engagement	CSE3	0.651	0.345	0.909	0.770
	Absorption	0.827	0.255		
	Dedication	0.886	0.460		
Mastery Approach	Vigor	0.917	0.416	0.790	0.659
	G1MAGO	0.933	0.795		
Performance Approach	G2MAGO	0.670	0.386	0.664	0.520
	G1PAGO	0.476	0.433		
Planning	G2PAGO	0.902	0.880	0.903	0.700
	G1EPlan	0.804	0.266		
	G1ProPlan	0.832	0.299		
	G2EPlan	0.852	0.279		
Objective Success Self-Perceptions of Success	G2ProPlan	0.859	0.349	1.00	1.00
	ObjSucc	1.00	1.00		
	SelfSucc1	0.858	0.527		
	SelfSucc2	0.818	0.453		
	SelfSucc3	0.665	0.267		

Table A9.8ii Average Variance Extracted by constructs and correlations between constructs to assess Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Creative Self-Efficacy	0.776									
2. Entrepreneurial Orientations	0.413	0.555								
3. Entrepreneurial Self-Efficacy	0.575	0.512	0.763							
4. Mastery Approach	0.012	-0.189	-0.114	0.812						
5. Objective Success	0.081	0.093	0.077	-0.298	1.00					
6. Personal Initiative	0.504	0.436	0.614	-0.008	0.074	0.678				
7. Performance Approach	0.121	0.288	0.278	-0.155	0.130	0.112	0.721			
8. Planning	0.190	0.311	0.066	0.257	0.232	0.089	0.370	0.837		
9. Self-Perceptions of Success	0.202	0.193	0.466	-0.168	0.317	0.406	0.223	0.239	0.785	
10. Work Engagement	0.356	0.366	0.563	-0.033	0.002	0.483	0.022	-0.053	0.192	0.877

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A9.8.iii Cross-loadings for measurement model

	CSE	EO	ESE	Mastery Approach	Obj. Success	PI	Perf. Approach	Planning	Self-Perc. of Success	Work Eng.
CSE1	0.829	0.379	0.484	0.093	-0.011	0.421	0.012	0.188	0.173	0.329
CSE2	0.835	0.268	0.485	0.021	-0.032	0.487	0.146	0.104	0.140	0.244
CSE3	0.651	0.313	0.357	-0.125	0.292	0.240	0.148	0.150	0.159	0.250
AOtot	0.229	0.673	0.393	-0.209	0.186	0.331	0.144	0.128	0.115	0.270
AutOTot	0.109	0.542	0.364	-0.041	0.059	0.183	0.217	0.314	0.288	0.113
CAgg	0.365	0.690	0.371	-0.202	-0.061	0.301	0.197	0.044	0.154	0.248
IOTot	0.266	0.472	0.036	0.159	0.229	0.169	0.087	0.510	0.005	0.170
LOTot	0.150	0.345	-0.003	0.118	0.210	0.138	0.180	0.532	0.244	0.158
RTTotRS	0.251	0.534	0.236	-0.114	-0.065	0.257	0.154	0.090	-0.118	0.251
ESE1	0.695	0.504	0.745	-0.012	0.046	0.563	0.136	0.022	0.287	0.540
ESE2	0.403	0.262	0.779	-0.109	0.010	0.364	0.232	-0.030	0.395	0.380
ESE3	0.305	0.439	0.717	-0.096	0.123	0.449	0.313	0.203	0.341	0.286
ESE4	0.416	0.400	0.863	-0.069	0.019	0.498	0.269	0.044	0.442	0.467
ESE5	0.337	0.314	0.705	-0.186	0.049	0.458	0.152	-0.065	0.264	0.544
ESE6	0.384	0.369	0.756	-0.064	0.122	0.416	0.196	0.163	0.440	0.259
G1MAGO	-0.068	-0.195	-0.129	0.933	-0.225	-0.054	-0.059	0.273	-0.100	-0.050
G2MAGO	0.172	-0.088	-0.029	0.670	-0.308	0.089	-0.281	0.103	-0.230	0.020
ObjSucc5	0.081	0.093	0.077	-0.298	1.00	0.074	0.130	0.232	0.317	0.002
PI1	0.295	0.351	0.368	-0.017	-0.056	0.694	0.130	-0.010	0.123	0.279
PI2	0.325	0.344	0.384	0.009	-0.078	0.761	0.059	0.034	0.194	0.371
PI3	0.278	0.181	0.330	-0.024	-0.034	0.681	-0.010	0.068	0.242	0.256
PI4	0.284	0.199	0.285	-0.023	0.022	0.705	-0.063	0.046	0.232	0.307
PI5	0.354	0.427	0.554	-0.026	0.294	0.666	0.214	0.227	0.433	0.374
PI6	0.284	0.240	0.426	-0.029	0.131	0.593	0.096	0.039	0.274	0.490
PI7	0.485	0.241	0.444	0.054	-0.020	0.632	0.025	-0.021	0.326	0.195
G1PAGO	0.284	0.163	0.248	-0.041	0.056	0.061	0.476	0.147	0.161	-0.099
G2PAGO	-0.002	0.247	0.194	-0.156	0.120	0.097	0.902	0.349	0.174	0.074
G1EPlan	0.142	0.275	0.104	0.279	0.166	0.127	0.222	0.804	0.193	-0.025
G1ProPlan	0.129	0.253	0.124	0.342	0.185	0.038	0.289	0.832	0.143	0.008
G2EPlan	0.121	0.316	0.008	0.103	0.187	0.057	0.340	0.852	0.201	-0.035
G2ProPlan	0.229	0.211	-0.003	0.147	0.230	0.081	0.373	0.859	0.253	-0.113
SelfS1	0.220	0.262	0.447	-0.249	0.315	0.491	0.183	0.144	0.858	0.284
SelfS2	0.201	0.166	0.385	-0.046	0.271	0.223	0.203	0.308	0.818	0.021
SelfS3	-0.020	-0.076	0.209	-0.060	0.105	0.174	0.130	0.089	0.665	0.124
Absorption	0.297	0.239	0.334	-0.064	0.003	0.282	0.025	-0.058	0.059	0.827
Dedication	0.324	0.330	0.559	0.094	-0.037	0.496	-0.011	-0.012	0.223	0.886
Vigor	0.315	0.368	0.530	-0.143	0.045	0.439	0.050	-0.079	0.179	0.917

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Table A9.8.iv Estimation of the structural model (motivational and volitional resources, goal orientations, planning, objective success and self-perceptions of success).

	Direct effects only model				Direct and indirect effects model			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Entrepreneurial self-efficacy	.451	Large	.701	.327	.401	Large	.704	.297
Creative self-efficacy	.300	Large	.701	.279	.290	Large	.697	.267
Work Engagement	.337	Large	.805	.160	.376	Large	.811	.163
Mastery Approach	.043	Small	.554	.040	.007	Very small	.568	.033
Performance Approach	.083	Small-medium	.636	.145	.081	Small-medium	.640	.116
Planning	.270	Large	.580	.192	.423	Large	.577	.251
Objective success	.054	Small	1.00	-.076	.217	Medium-large	1.00	.419
Self-perceptions of success	.099	Small	.727	.119	.376	Large	.725	.308

Table A9.8.v Statistical results for Path Coefficients in direct effects only model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, mastery approach, performance approach, work engagement, planning, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	0.238*	1.97	0.121	0.121	.001; .475	.060	Small
Entrepreneurial orientations → entrepreneurial self-efficacy	0.301*	2.56	0.118	0.118	.070; .532	.138	Small-medium
Entrepreneurial orientations → mastery approach	-0.229	1.29	0.178	0.178	-.578; .120	.045	Small
Entrepreneurial orientations → performance approach	0.295*	1.91	0.154	0.154	-.007; .597	.077	Small
Personal Initiative → Creative self-efficacy	0.401**	3.18	0.126	0.126	.154; .648	.174	Medium
Personal initiative → entrepreneurial self-efficacy	0.483***	4.61	0.105	0.105	.277; .689	.350	Large
Personal initiative → mastery approach	0.092	0.596	0.154	0.154	-.210; .394	.037	Small
Personal initiative → performance approach	-0.017	0.121	0.138	0.138	-.287; .253	.000	None
Creative self-efficacy → planning	0.217*	1.75	0.124	0.124	-.026; .460	.044	Small
Creative self-efficacy → work engagement	0.039	0.311	0.124	0.124	-.204; .282	.000	None
Entrepreneurial self-efficacy → planning	-0.144	0.987	0.146	0.146	-.430; .142	.014	Very small
Entrepreneurial self-efficacy → Work engagement	0.581***	5.36	0.109	0.109	.367; .795	.314	Medium-large
Mastery approach → planning	0.304**	2.92	0.104	0.104	.100; .508	.107	Small-medium
Mastery approach → work engagement	0.011	0.107	0.105	0.105	-.195; .217	.000	None
Performance approach → planning	0.431***	3.99	0.108	0.108	.219; .643	.223	Medium
Performance approach → work engagement	-0.142	1.04	0.137	0.137	-.354; .070	.029	Small
Planning → self-perceptions of success	0.250*	1.84	0.136	0.136	-.017; .517	.031	Small
Planning → objective success	0.233*	2.10	0.111	0.111	.015; .451	.057	Small
Work engagement → self-perceptions of success	0.206	1.29	0.159	0.159	-.106; .518	.026	Small
Work engagement → objective success	0.015	0.142	0.103	0.103	-.187; .217	.000	None

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
 where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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Table A9.8.vi Statistical results for Path Coefficients in fully specified model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	0.238*	1.90	0.125	0.125	-.007; .483	.059	Small
Entrepreneurial orientations → entrepreneurial self-efficacy	0.188	1.35	0.140	0.140	-.086; .462	.052	Small
Entrepreneurial orientations → mastery approach	-0.086	0.492	0.175	0.175	-.429; .257	.006	Negligible
Entrepreneurial orientations → performance approach	0.284*	1.88	0.151	0.151	-.012; .580	.074	Small
Entrepreneurial orientations → planning	0.477**	2.93	0.163	0.163	.158; .796	.286	Medium-Large
Entrepreneurial orientations → work engagement	0.145	1.22	0.119	0.119	-.089; .378	.022	Small
Entrepreneurial orientations → objective success	-0.041	0.225	0.183	0.183	-.400; .318	.001	Negligible
Entrepreneurial orientations → self-perceptions of success	-0.164	0.959	0.171	0.171	-.499; .171	.010	Very small
Personal Initiative → Creative self-efficacy	0.397**	3.05	0.130	0.130	.142; .652	.168	Medium
Personal initiative → entrepreneurial self-efficacy	0.535***	5.07	0.105	0.105	.329; .741	.406	Large
Personal initiative → mastery approach	0.056	0.413	0.136	0.136	-.211; .323	.003	Negligible
Personal initiative → performance approach	0.001	0.008	0.134	0.134	-.262; .264	.001	Negligible
Personal initiative → work engagement	0.204	1.41	0.144	0.144	-.078; .486	.040	Small
Personal initiative → planning	-0.053	0.453	0.118	0.118	-.284; .178	.002	Negligible
Personal initiative → objective success	0.076	0.557	0.136	0.136	-.191; .343	.000	None
Personal initiative → self-perceptions of success	0.295*	2.033	0.145	0.145	.011; .579	.077	Small
Creative self-efficacy → work engagement	-0.020	0.140	0.144	0.144	-.302; .262	-.002	Negligible
Creative self-efficacy → planning	0.079	0.619	0.127	0.127	-.170; .328	-.017	Very small
Creative self-efficacy → objective success	0.060	0.401	0.149	0.149	-.232; .358	.001	Negligible
Creative self-efficacy → self-perceptions of success	-0.151	1.013	0.149	0.149	-.443; .141	.026	Small
Entrepreneurial self-efficacy → planning	-0.205	1.407	0.145	0.145	-.489; .079	-.003	Negligible
Entrepreneurial self-efficacy → Work engagement	0.428**	2.90	0.147	0.147	.140; .716	.149	Medium
Entrepreneurial self-efficacy → objective success	-0.011	0.058	0.188	0.188	-.379; .357	-.001	Negligible
Entrepreneurial self-efficacy → self-perceptions of success	0.443*	2.18	0.204	0.204	.043; .833	.103	Small-medium
Mastery approach → planning	0.303**	2.98	0.101	0.101	.105; .501	.133	Small-Medium
Mastery approach → work engagement	-0.007	0.072	0.092	0.092	-.187; .173	-.002	Negligible
Mastery approach → self-perceptions of success	-0.269*	2.24	0.121	0.121	-.506; -.032	.091	Small
Mastery approach → objective success	0.436***	3.68	0.118	0.118	-.667; -.205	.195	Medium
Performance approach → planning	0.351**	3.06	0.115	0.115	.126; .576	.170	Medium
Performance approach → work engagement	-0.165	1.29	0.128	0.128	-.416; .086	.035	Small
Performance approach → self-perceptions of success	-0.057	0.491	0.117	0.117	-.286; .172	.006	Negligible

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Table 9.8.vi (cont.).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Performance approach → objective success	0.072	0.717	0.136	0.136	-.364; .170	.009	Negligible
Work engagement →self-perceptions of success	-0.066	0.406	0.162	0.162	-.384; .252	.002	Negligible
Work engagement → objective success	-0.023	0.157	0.147	0.147	-.311; .265	.000	None
Planning →self-perceptions of success	0.357**	2.73	0.131	0.131	.100; .614	.087	Small
Planning → objective success	0.364**	2.61	0.140	0.140	.090; .638	.107	Small-medium

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{cv} * SE$

where $t_{cv} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table A9.8.vii Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on planning & work engagement, via entrepreneurial self-efficacy, creative self-efficacy & goal orientations.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO →ESE →WEng	.080	.086	.069	1.16	-.04; .23
EO → CSE →WEng	-.005	-.004	.039	-.128	-.08; .08
EO → ESE → Planning	-.039	-.044	.048	-.813	-.16; .02
EO → CSE → Planning	.019	.019	.034	.559	-.05; .09
EO →MA →WEng	.001	.003	.019	.053	-.03; .05
EO → PA →WEng	-.047	-.054	.053	.887	-.18; .04
EO → MA → Planning	-.026	-.030	.056	-.464	-.16; .07
EO → PA → Planning	.100	.105	.062	1.61	-.01; .24
PI →ESE →WEng	.229	.226	.090	2.54*	.06; .42
PI → CSE →WEng	-.008	-.014	.063	-.127	-.16; .11
PI →ESE →Planning	-.110	-.096	.075	-1.47	-.25; .05
PI → CSE →Planning	.031	.041	.059	.525	-.06; .18
PI →MA →WEng	.000	.001	.014	.000	-.03; .03
PI → PA →WEng	.000	.005	.028	.000	-.05; .07
PI →MA →Planning	.017	.017	.042	.405	-.07; .11
PI → PA →Planning	.000	-.006	.049	.000	-.11; .10

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

Table A9.8.viii Test of the indirect effects of entrepreneurial self-efficacy, creative self-efficacy, mastery approach and performance approach on objective success and self-perceptions of success, via work engagement and planning.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
ESE → WEng →Obj. Success	-.010	-.015	.069	-.145	-.16; .12
ESE → WEng →Self-perceptions of success	-.028	-.033	.077	-.364	-.20; .11
ESE → Planning →Obj. Success	-.075	-.067	.061	-1.23	-.18; .03
ESE → Planning →Self-perceptions of success	-.073	-.061	.052	-1.40	-.21; .03
CSE → WEng → Obj. Success	.000	.003	.022	.000	-.04; .06
CSE → WEng →Self-perceptions of success	.001	.002	.027	.037	-.05; .06
CSE → Planning → Obj. Success	.029	.032	.050	.580	-.06; .15
CSE → Planning →Self-perceptions of success	.028	.029	.046	.609	-.05; .13
MA → WEng →Obj. Success	.000	-.002	.014	.000	-.03; .03
MA → WEng →Self-perceptions of success	.000	-.002	.016	.000	-.04; .03
MA → Planning →Obj. Success	.110	.106	.060	1.83*	.00; .24
MA → Planning →Self-perceptions of success	.108	.098	.050	2.16*	.01; .21
PA → WEng → Obj. Success	.004	.005	.031	.129	-.06; .07
PA → WEng →Self-perceptions of success	.011	.014	.035	.314	-.05; .10
PA → Planning → Obj. Success	.128	.117	.059	2.17*	.01; .24
PA → Planning →Self-perceptions of success	.125	.114	.057	2.19*	.02; .24

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

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Table A9.8.ix Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on objective success and self-perceptions of success, via entrepreneurial self-efficacy, creative self-efficacy, goal orientations and work engagement.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → WEng → Obj. Success	-.002	-.002	.017	-.118	-.04; .03
EO → ESE → WEng → Self-perceptions of Success	-.005	-.007	.019	-.263	-.05; .03
EO → CSE → WEng → Obj. Success	.000	.001	.006	.000	-.01; .01
EO → CSE → WEng → Self-perceptions of success	.000	.000	.007	.000	-.01; .02
EO → MA → WEng → Obj. Success	.000	.000	.003	.000	-.01; .01
EO → MA → WEng → Self-perceptions of Success	.000	.000	.003	.000	-.01; .01
EO → PA → WEng → Obj. Success	.001	.001	.011	.091	-.02; .03
EO → PA → WEng → Self-perceptions of success	.003	.005	.013	.231	-.02; .04
PI → ESE → WEng → Obj. Success	-.005	-.007	.037	-.135	-.09; .06
PI → ESE → WEng → Self-perceptions of Success	-.015	-.016	.041	-.366	-.10; .07
PI → CSE → WEng → Obj. Success	.000	.001	.010	.000	-.02; .03
PI → CSE → WEng → Self-perceptions of success	.000	.001	.012	.000	-.02; .03
PI → MA → WEng → Obj. Success	.000	.000	.002	.000	-.01; .00
PI → MA → WEng → Self-perceptions of Success	.000	.000	.003	.000	-.01; .00
PI → PA → WEng → Obj. Success	.000	.000	.004	.000	-.01; .01
PI → PA → WEng → Self-perceptions of success	.000	.000	.005	.000	-.01; .01

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

Table A9.8.x Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on objective success and self-perceptions of success, via entrepreneurial self-efficacy, creative self-efficacy, goal orientations and planning.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → Planning → Obj. Success	-.014	-.017	.021	-.667	-.07; .01
EO → ESE → Planning → Self-perceptions of Success	-.014	-.014	.016	-.875	-.05; .01
EO → CSE → Planning → Obj. Success	.007	.007	.014	.500	-.02; .04
EO → CSE → Planning → Self-perceptions of success	.007	.006	.013	.538	-.02; .04
EO → MA → Planning → Obj. Success	-.009	-.011	.023	-.391	-.07; .03
EO → MA → Planning → Self-perceptions of Success	-.009	-.010	.019	-.473	-.05; .02
EO → PA → Planning → Obj. Success	.036	.036	.026	1.38	.00; .10
EO → PA → Planning → Self-perceptions of success	.036	.035	.025	1.44	.00; .09
PI → ESE → Planning → Obj. Success	-.040	-.034	.032	-1.25	-.11; .02
PI → ESE → Planning → Self-perceptions of Success	-.039	-.032	.028	-1.39	-.10; .02
PI → CSE → Planning → Obj. Success	.011	.014	.024	.458	-.02; .07
PI → CSE → Planning → Self-perceptions of success	.011	.013	.021	.524	-.02; .07
PI → MA → Planning → Obj. Success	.006	.006	.017	.353	-.03; .04
PI → MA → Planning → Self-perceptions of Success	.006	.006	.015	.400	-.02; .04
PI → PA → Planning → Obj. Success	.000	-.001	.018	.000	-.04; .04
PI → PA → Planning → Self-perceptions of success	.000	-.001	.017	.000	-.04; .03

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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Table A9.8.xi Test of alternative indirect paths.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → Obj. Success	-.002	-.002	.047	-.043	-.10; .10
EO → ESE → Self-perceptions of Success	.083	.095	.087	.954	-.03; .30
EO → CSE → Obj. Success	.014	.018	.042	.333	-.06; .11
EO → CSE → Self-perceptions of Success	-.036	-.042	.047	-.766	-.15; .03
EO → MA → Obj. Success	.037	.046	.081	.457	-.09; .23
EO → MA → Self-perceptions of Success	.023	.028	.052	.442	-.07; .15
EO → PA → Obj. Success	-.028	-.029	.053	-.528	-.15; .06
EO → PA → Self-perceptions of Success	.021	.005	.013	1.62	-.11; .06
EO → WEng → Obj. Success	-.003	-.005	.028	-.107	-.07; .05
EO → WEng → Self-perceptions of Success	-.010	-.007	.032	-.313	-.08; .06
EO → Planning → Obj. Success	.174	.163	.090	1.93*	-.01; .34
EO → Planning → Self-perceptions of Success	.170	.160	.086	1.98*	.00; .34
PI → ESE → Obj. Success	-.006	-.007	.103	-.058	-.22; .20
PI → ESE → Self-perceptions of Success	.237	.228	.107	2.21*	.01; .44
PI → CSE → Obj. Success	.024	.019	.064	.375	-.12; .14
PI → CSE → Self-perceptions of Success	-.060	-.069	.068	-.882	-.22; .05
PI → MA → Obj. Success	-.024	-.031	.060	-.400	-.16; .08
PI → MA → Self-perceptions of Success	-.015	-.019	.038	-.395	-.10; .05
PI → PA → Obj. Success	.000	.001	.022	.000	-.05; .05
PI → PA → Self-perceptions of Success	.000	.002	.017	.000	-.03; .04
PI → WEng → Obj. Success	-.005	-.007	.037	-.135	-.09; .07
PI → WEng → Self-perceptions of Success	-.013	-.014	.043	-.302	-.11; .07
PI → Planning → Obj. Success	-.019	-.022	.047	-.404	-.13; .06
PI → Planning → Self-perceptions of Success	-.019	-.020	.043	-.442	-.11; .06

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

Table A9.8.xii Test of total indirect effects.

Total Indirect effect (Σab - c')	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → planning	.054	.049	.097	.557	-.15; .21
EO → WEng	-.030	-.031	.143	-.210	-.34; .23
PI → planning	-.061	-.044	.103	-.592	-.24; .16
PI → WEng	.220	.218	.093	2.37*	.03; .40
EO → objective success	.211	.173	.246	.857	-.33; .62
EO → self-perceptions of success	.232	.236	.108	2.15*	.04; .45
PI → objective success	-.058	-.069	.098	-.592	-.27; .13
PI → self-perceptions of success	.093	.078	.121	.769	-.15; .32
MA → objective success	.110	.104	.063	1.75*	-.01; .24
MA → self-perceptions of success	.108	.095	.057	1.90*	.00; .21
PA → objective success	.131	.121	.067	1.96*	.00; .25
PA → self-perceptions of success	.136	.126	.067	2.03*	.01; .27
ESE → objective success	-.084	-.082	.087	-.966	-.27; .07
ESE → self-perceptions of success	-.101	-.090	.098	-1.03	-.30; .09
CSE → objective success	.029	.034	.055	.527	-.06; .15
CSE → self-perceptions of success	.029	.031	.056	.518	-.07; .16

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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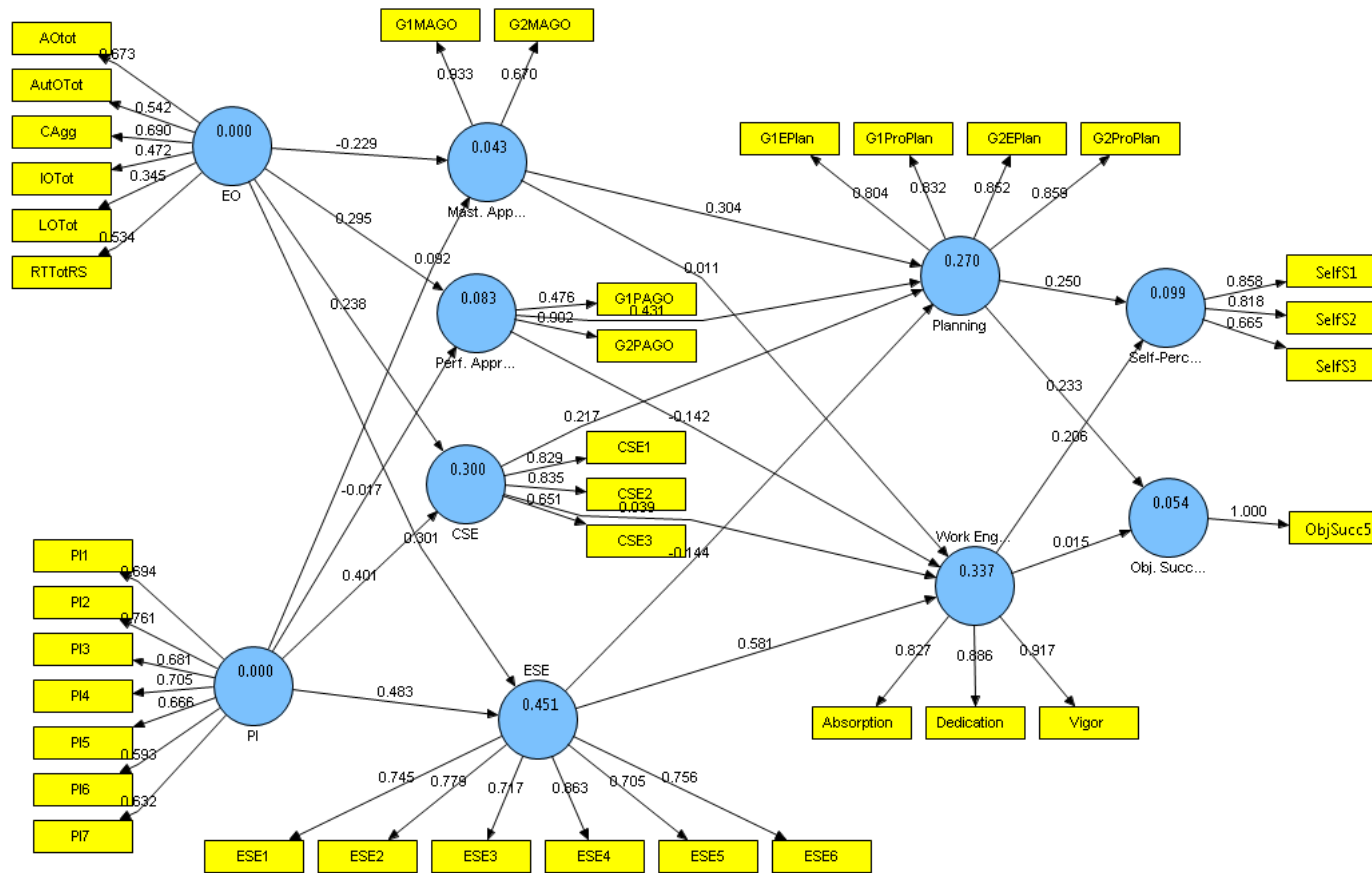


Figure A9.8.i. Direct effects only model investigating motivational and volitional resources, goal orientations, planning, objective success and self-perceptions of success.

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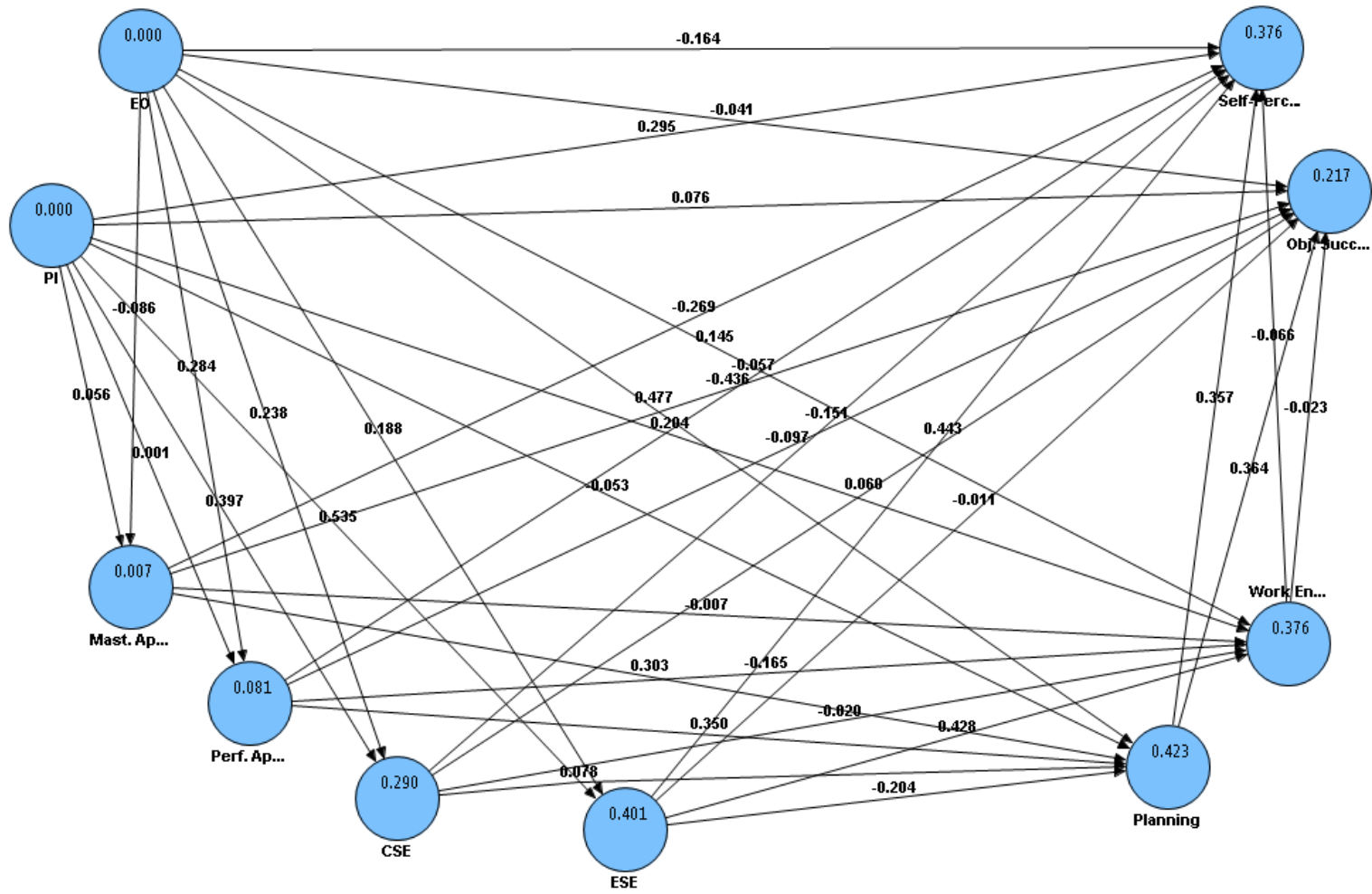


Figure A9.8.ii. Fully specified model investigating motivational and volitional resources, goal orientations, planning, objective success and self-perceptions of success (measurement model is not shown).

Appendix 9.9: Model estimating the direct and indirect effects of motivational and volitional resources, goal orientations and planning on external success

The analysis presented in this appendix provides a further examination of the models tested in section 9.3 of chapter 10. However, the success variable of interest in this appendix is the external success ratings, and hence, the available sample for this variable is 48 participants, for which this rating from returned from a source external to the venture. The requirements for the specification of this model are the same as that outlined in section 9.3, and as such the sample of N = 48 is only capable of determining large effects at a significant level. However, estimates of effect size are not influenced by sample size and so, using effect size estimates, the models examined in this appendix serve to corroborate the findings with the larger sample and the self-reported success measures.

The results of the measurement model which are shown in this section pertain to the model as specified in Figure A9.9.i. The fully specified model was also calculated, but as the results of the measurement model for both versions are very similar, they are presented only once. Table A9.9.i displays the average variance extracted, composite reliability, factor loadings and weights for each of the variables. The results demonstrate similar measurement issues to that found in section 9.3; with the AVEs for entrepreneurial orientations, personal initiative and entrepreneurial self-efficacy somewhat below the recommended level of 0.5. However the composite reliability for these variables is high. All of the other variables meet the recommended levels for the AVE and composite scale reliability. The factor loadings for work engagement, creative self-efficacy, planning and external success were all above the recommended level of 0.7. However, each of the other variables had at least one indicator that was below this.

Table A9.9.i. Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)	
Entrepreneurial Orientations	AO	0.744	0.407	0.762	0.359	
	AutO	0.420	0.237			
	CAGg	0.647	0.273			
	IO	0.684	0.263			
	LO	0.629	0.240			
Personal Initiative	RTrs	0.380	0.237	0.852	0.454	
	PI1	0.643	0.193			
	PI2	0.704	0.182			
	PI3	0.673	0.145			
	PI4	0.754	0.171			
	PI5	0.746	0.317			
	PI6	0.590	0.232			
Entrepreneurial Self-efficacy	ESE1	0.634	0.340	0.847	0.482	
	ESE2	0.684	0.167			
	ESE3	0.609	0.219			
	ESE4	0.795	0.240			
	ESE5	0.738	0.297			
	ESE6	0.690	0.184			
Creative Self-efficacy	CSE1	0.781	0.462	0.810	0.587	
	CSE2	0.759	0.420			
	CSE3	0.757	0.422			
Work Engagement	Absorption	0.847	0.292	0.926	0.807	
	Dedication	0.917	0.403			
	Vigor	0.928	0.413			
Mastery Approach	G1MAGO	0.975	0.877	0.779	0.652	
	G2MAGO	0.594	0.244			
Performance Approach Planning	G1PAGO	0.832	0.800	0.685	0.528	
	G2PAGO	0.602	0.555			
	G1EPlan	0.856	0.369			0.891
	G1ProPlan	0.821	0.321			
	G2EPlan	0.805	0.232			
	G2ProPlan	0.793	0.294			
External Success	ExtS1	0.842	0.416	0.889	0.801	
	ExtS2	0.945	0.688			

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Moving to consider the discriminant validity, the Fornell-Larcker criterion is met (see Table A9.9.ii) and the cross-loadings are all smaller than the loadings of each indicator on its own latent variable (see Table A9.9.iii). Hence, although there are a number of minor issues with the measurement model, it was deemed appropriate to evaluate the structural model.

Table A9.9.ii. Average Variance Extracted by constructs and correlations between constructs to assess Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Creative Self-Efficacy	0.766								
2. Entrepreneurial Orientations	0.459	0.599							
3. Entrepreneurial Self-Efficacy	0.592	0.451	0.694						
4. External Success	-0.095	0.002	0.110	0.895					
5. Mastery Approach	0.024	-0.16	-0.203	-0.010	0.807				
6. Personal Initiative	0.439	0.442	0.534	-0.009	0.018	0.674			
7. Performance Approach	0.114	0.109	0.249	0.144	-0.078	-0.017	0.727		
8. Planning	0.312	0.394	0.189	0.232	0.274	0.225	0.392	0.819	
9. Work Engagement	0.399	0.402	0.624	-0.012	-0.136	0.557	-0.108	-0.058	0.898

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A9.9.iii. Cross-loadings for measurement model

	CSE	EO	ESE	External Success	Mastery Approach	PI	Performance Approach	Planning	Work Eng.
CSE1	0.781	0.443	0.422	-0.081	0.113	0.245	-0.041	0.284	0.326
CSE2	0.759	0.187	0.459	-0.04	0.066	0.417	0.149	0.191	0.384
CSE3	0.757	0.417	0.483	-0.098	-0.132	0.357	0.167	0.238	0.206
AOTot	0.283	0.744	0.416	0.097	-0.288	0.397	0.183	0.236	0.397
AutOTot	0.134	0.420	0.239	0.112	-0.239	0.033	0.146	0.182	-0.061
CAGg	0.260	0.647	0.236	-0.033	-0.196	0.239	-0.004	0.128	0.228
IOTot	0.427	0.684	0.17	-0.174	0.132	0.298	-0.033	0.372	0.154
LOTot	0.327	0.629	0.178	0.037	0.119	0.328	0.14	0.508	0.233
RTTotRS	0.212	0.380	0.31	-0.074	0.016	0.21	-0.102	0	0.405
ESE1	0.724	0.555	0.634	-0.073	-0.057	0.448	0.134	0.224	0.523
ESE2	0.300	0.122	0.684	0.102	-0.178	0.181	0.272	-0.018	0.386
ESE3	0.261	0.332	0.609	0.208	-0.102	0.397	0.243	0.306	0.226
ESE4	0.364	0.262	0.795	-0.006	-0.137	0.303	0.287	0.061	0.464
ESE5	0.365	0.195	0.738	0.067	-0.254	0.484	-0.11	-0.063	0.599
ESE6	0.232	0.267	0.690	0.290	-0.126	0.261	0.374	0.289	0.234
ExtS1	-	-	0.094	0.842	0.026	0.024	0.032	0.149	0.018
ExtS2	0.092	0.064	0.103	0.945	-0.031	-	0.189	0.247	-0.028
G1MAGO	-	-	-	0.047	0.975	-	-0.038	0.297	-0.157
G2MAGO	0.034	0.164	0.213	-0.213	0.594	0.091	-0.185	0.055	0.008
PI1	0.221	0.067	0.066	-0.243	0.050	0.643	-0.120	-0.089	0.362
PI2	0.283	0.263	0.274	-0.007	0.033	0.704	-0.106	-0.013	0.345
PI3	0.279	0.331	0.249	0.058	-0.014	0.673	0.032	0.174	0.293
PI4	0.120	0.311	0.288	-0.034	0.030	0.754	-0.211	0.101	0.379
PI5	0.182	0.359	0.296	-0.027	-0.028	0.746	0.194	0.344	0.428

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	CSE	EO	ESE	External Success	Mastery Approach	PI	Performance Approach	Planning	Work Eng.
PI6	0.329	0.208	0.345	0.142	-0.014	0.590	-0.001	0.254	0.533
PI7	0.334	0.227	0.386	0.051	0.047	0.587	-0.016	0.136	0.229
G1PAGO	0.110	0.047	0.089	0.019	-0.001	-	0.832	0.304	-0.174
G2PAGO	0.047	0.128	0.319	0.231	-0.14	0.131	0.602	0.268	0.057
G1EPlan	0.314	0.38	0.215	0.254	0.265	0.275	0.357	0.856	-0.018
G1ProPlan	0.226	0.352	0.260	0.180	0.332	0.162	0.29	0.821	0.021
G2EPlan	0.143	0.317	-	0.115	0.098	0.127	0.342	0.805	-0.086
G2ProPlan	0.307	0.226	0.096	0.183	0.159	0.142	0.297	0.793	-0.129
Absorption	0.387	0.350	0.465	-0.166	-0.108	0.466	0.015	0.005	0.847
Dedication	0.335	0.349	0.563	-0.013	-0.082	0.492	-0.205	-0.076	0.917
Vigor	0.366	0.387	0.633	0.101	-0.172	0.540	-0.072	-0.070	0.928

Two versions of the structural model are evaluated, the first includes paths only between each sequential stage of the model, while the second includes all direct and indirect paths between latent variables. Table A9.9.iv provides an overview of both versions of the model. In the model which included only the direct effects, entrepreneurial orientations and personal initiative combined explained 34.3% of the variance in entrepreneurial self-efficacy, and 28.0% of the variance in creative self-efficacy (both large effects), but explained only a small amount of the variance in mastery approach goal orientations (3.5%) and performance approach goal orientations (1.7%).

Looking at the effects of the four variables in the proximal motivational phase, combined entrepreneurial and creative self-efficacy, and mastery and performance approach goals explained 31.4% of the variance in planning and 46.4% of the variance in work engagement (both large effects). Finally the volitional variables (planning and work engagement) had a small effect on external success, explaining 5.4% of the variance in this variable.

The results of the fully specified model resulted in largely similar findings, with the effect sizes of the same magnitude for any of motivational and volitional variables. However, the inclusion of the direct paths from all variables to external success resulted in a larger percentage of the variance being explained. Overall, 13.8% of the variance in external success was explained, which is a medium effect size. This result represents a similar trend to the analysis conducted with the two self-reported success variables analysed in section 9.3.

Table A9.9.v Estimation of the structural model (motivational and volitional resources, goal orientations, planning, and external success).

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Entrepreneurial self-efficacy	.343	Large	.520	.093	.524	Large	.521	.090
Creative self-efficacy	.280	Large	.546	.130	.281	Large	.546	.137
Work Engagement	.464	Large	.864	.504	.322	Large	.867	.556
Mastery Approach	.035	Small	.774	.067	.018	Small	.608	.113
Performance Approach	.017	Small	.264	-.017	.014	Small	.335	-.015
Planning	.314	Large	.689	.360	.439	Large	.691	.360
External success	.054	Small	.476	.073	.138	Medium	.482	-.360

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To explain these effects in more detail, the individual paths were examined. Figure A9.9.i and Table A9.9.vi outline the results of the path coefficients for the model specifying the direct paths between each sequential phase of the model only. The results indicate that personal initiative had a significant effect on both types of self-efficacy, having a medium effect on entrepreneurial self-efficacy and a small effect on creative self-efficacy. Entrepreneurial orientations had a small-medium effect on creative self-efficacy, a small positive (but non-significant) effect on entrepreneurial self-efficacy and a small, negative (but also non-significant) effect on mastery approach goals. In turn, entrepreneurial self-efficacy had a large effect on work engagement, and creative self-efficacy had a small, but non-significant effect on planning. Both mastery approach goals and performance approach goals significantly predicted planning, having small-medium and medium effects respectively. Performance approach goals also had a small negative effect on work engagement. Planning had a small effect on external success, but this did not reach significant, and work engagement had no effect. These results are largely in line with those found in section 9.3.

Figure A9.9.ii and Table A9.9.vii outline the results for the fully specified model. In this model, more weight is given to the effect size estimations as the sample size was not powerful enough to detect many potential effects at a significant level. In this model, entrepreneurial orientations had a significant positive effect on creative self-efficacy and planning, and small, but non-significant effects on entrepreneurial self-efficacy and work engagement. Personal initiative had a significant positive effect on entrepreneurial self-efficacy and work engagement, and a small, but non-significant effect on creative self-efficacy. Both performance approach and mastery approach goals significantly predicted planning, and performance approach also had a significant negative effect on work engagement. Entrepreneurial self-efficacy had a significant effect on work engagement, and a small, but non-significant effect on external success. Creative self-efficacy had a small positive effect on work engagement and a small negative effect on external success, but there did not reach significance. Finally, planning had a small, but non-significant effect on external success, but work engagement had no relationship with this variable.

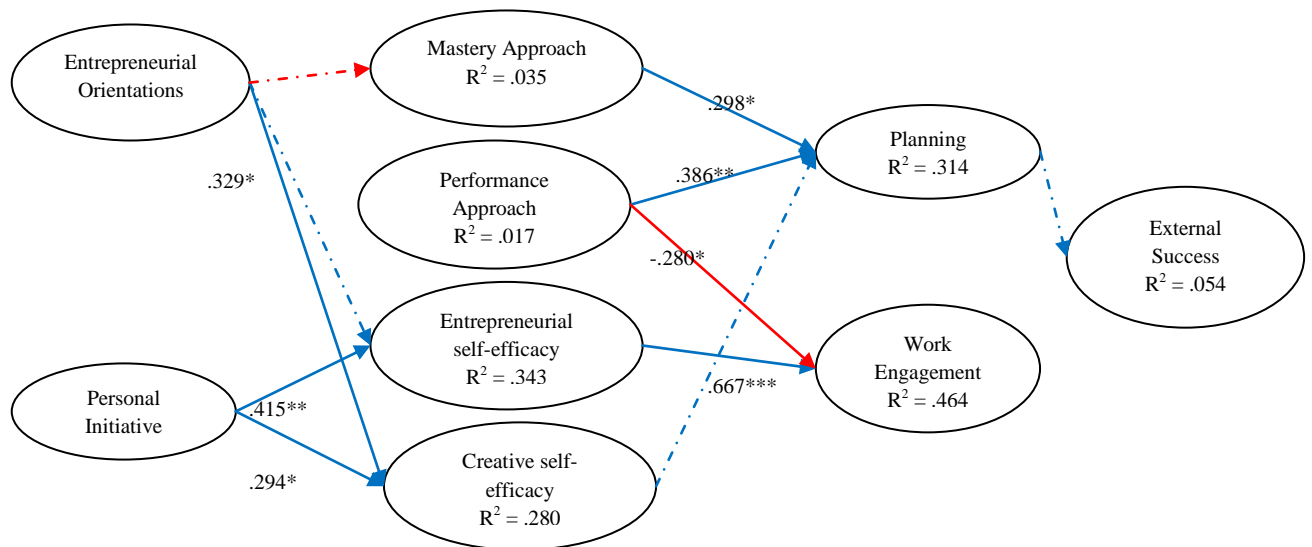


Figure A9.9.i. Results of Partial Least Squares analysis for the model investigating the relationships between motivational resources, volitional resources, goal orientations, planning, and external success. (** $p < .001$; ** $p < .01$; * $p < .05$; blue/red dashed lines indicate positive/negative small but non-significant effects; black dashed lined indicate non-significant paths).

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Table A9.9.vi. Statistical results for Path Coefficients in direct effects only model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, mastery approach, performance approach, work engagement, planning, and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	0.329*	2.06	0.160	0.160	.015; .643	.110	Small-medium
Entrepreneurial orientations → entrepreneurial self-efficacy	0.268	1.38	0.195	0.195	-.114; .650	.093	Small
Entrepreneurial orientations → mastery approach	-0.209	0.775	0.270	0.270	-.738; .320	.036	Small
Entrepreneurial orientations → performance approach	0.144	0.563	0.256	0.256	-.358; .646	.017	Very small
Personal Initiative → Creative self-efficacy	0.294*	1.78	0.165	0.165	-.029; .617	.074	Small
Personal initiative → entrepreneurial self-efficacy	0.415**	2.75	0.151	0.151	.119; .711	.207	Medium
Personal initiative → mastery approach	0.110	0.577	0.191	0.191	-.264; .484	.011	Very small
Personal initiative → performance approach	-0.080	0.321	0.250	0.250	-.570; .410	.005	Negligible
Creative self-efficacy → planning	0.262	1.38	0.190	0.190	-.110; .634	.057	Small
Creative self-efficacy → work engagement	0.037	0.245	0.151	0.151	-.259; .333	.007	Negligible
Entrepreneurial self-efficacy → planning	-0.002	0.008	0.215	0.215	-.423; .419	-.003	Negligible
Entrepreneurial self-efficacy → Work engagement	0.667***	5.20	0.128	0.128	.416; .918	.476	Large
Mastery approach → planning	0.298*	1.76	0.169	0.169	-.033; .629	.114	Small-medium
Mastery approach → work engagement	-0.024	0.169	0.139	0.139	-.296; .248	-.002	Negligible
Performance approach → planning	0.386**	2.57	0.150	0.150	.092; .680	.168	Medium
Performance approach → work engagement	-0.280*	2.11	0.132	0.132	-.539; -.021	.140	Small-medium
Planning → external success	0.232	1.52	0.153	0.153	-.069; .532	.055	Small
Work engagement → external success	0.001	0.008	0.175	0.175	-.342; .344	.000	None

* p < .05, ** p < .001; *** p < .0001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
 where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval (Hinkle, Wiersma & Jurs, 1998)

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Table A9.9.vii. Statistical results for Path Coefficients in fully specified model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, planning and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	0.348*	2.19	0.159	0.159	.036; .660	.121	Small-medium
Entrepreneurial orientations → entrepreneurial self-efficacy	0.239	1.22	0.196	0.196	-.145; .623	.071	Small
Entrepreneurial orientations → mastery approach	-0.149	0.622	0.240	0.240	-.619; .321	.018	Very small
Entrepreneurial orientations → performance approach	0.134	0.556	0.241	0.241	-.338; .606	.014	Very small
Entrepreneurial orientations → planning	0.381*	2.13	0.179	0.179	.030; .732	.175	Medium
Entrepreneurial orientations → work engagement	0.113	0.782	0.144	0.144	-.169; .395	.021	Small
Entrepreneurial orientations → external success	-0.139	0.573	0.243	0.243	-.615; .337	.012	Very small
Personal Initiative → Creative self-efficacy	0.272	1.652	0.165	0.165	-.051; .595	.063	Small
Personal initiative → entrepreneurial self-efficacy	0.418**	2.71	0.154	0.154	.116; .720	.193	Medium
Personal initiative → mastery approach	0.080	0.411	0.194	0.194	-.300; .460	.005	Negligible
Personal initiative → performance approach	-0.049	0.199	0.247	0.247	-.533; .435	.001	Negligible
Personal initiative → work engagement	0.268*	1.64	0.163	0.163	.051; .587	.095	Small
Personal initiative → planning	0.064	0.373	0.171	0.171	-.271; .399	-.007	Negligible
Personal initiative → external success	-0.055	0.208	0.265	0.265	-.574; .464	.003	Negligible
Creative self-efficacy → work engagement	-0.043	0.267	0.160	0.160	-.357; .271	.000	None
Creative self-efficacy → planning	0.130	0.664	0.196	0.196	-.254; .514	.025	Small
Creative self-efficacy → external success	-0.291	1.23	0.237	0.237	-.756; .174	.059	Small
Entrepreneurial self-efficacy → planning	-0.135	0.615	0.219	0.219	-.564; .294	.012	Very small
Entrepreneurial self-efficacy → Work engagement	0.513***	3.29	0.156	0.156	.207; .819	.254	Medium-large
Entrepreneurial self-efficacy → external success	0.283	0.774	0.366	0.366	-.434; 1.00	.034	Small
Mastery approach → planning	0.325*	1.88	0.173	0.173	-.014; .664	.168	Medium
Mastery approach → work engagement	-0.045	0.369	0.122	0.122	-.284; .194	.002	negligible
Mastery approach → external success	-0.042	0.177	0.238	0.238	-.508; .424	.001	Negligible
Performance approach → planning	0.404*	2.55	0.158	0.158	.094; .714	.240	Medium-large
Performance approach → work engagement	-0.238*	1.85	0.129	0.129	-.491; .015	.107	Small-medium
Performance approach → external success	-0.010	0.050	0.207	0.207	-.416; .396	-.002	Negligible
Work engagement → external success	0.031	0.120	0.259	0.259	-.477; .539	-.013	Very small
Planning → external success	0.348	1.52	0.229	0.229	-.101; .797	.059	Small

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
 where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

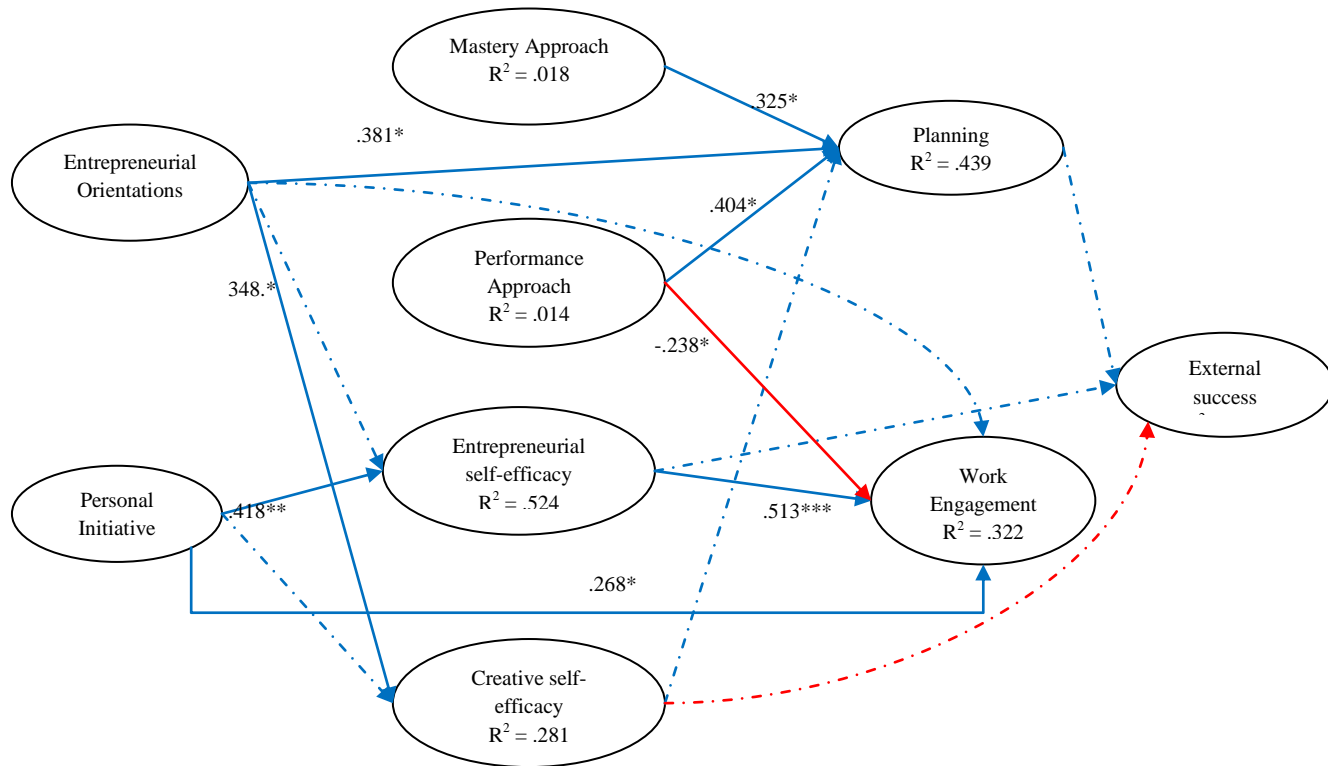


Figure A9.9.ii. Results of Partial Least Squares analysis for the fully specified model investigating the relationships between motivational resources, volitional resources, goal orientations, planning, and external success. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$ (Blue/red dashed lines indicate positive/negative small but non-significant effects; other non-significant paths are not shown).

The final stage of the assessment of the structural model necessitated the investigation of the significance of the indirect paths. Only the indirect effects pertaining to external success were calculated as all others were already calculated in the main analysis in chapter 10. The bootstrap estimations and significance of the indirect effects can be found in Table A9.9viii, ix, x, and xi. These were based on the fully specified model in order to control for any direct effects that the variables may be having (i.e. to control for the c' paths). None of the indirect paths reached significance. However, this is more likely due to the small sample size upon which this model is based, rather than the absence of a true indirect effect.

Table A9.9.viii. Test of the indirect effects of entrepreneurial self-efficacy, creative self-efficacy, and goal orientations on external success via work engagement and planning.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
ESE → WEng → Ext Success	.016	.034	.139	.115	-.20; .35
ESE → Planning → Ext. Success	-.047	-.030	.098	-.480	-.25; .16
CSE → WEng → Ext. Success	-.001	-.010	.047	-.021	-.13; .07
CSE → Planning → Ext. Success	.045	.045	.091	.494	-.12; .26
MA → WEng → Ext. Success	-.001	.002	.036	-.028	-.07; .08
MA → Planning → Ext. Success	.113	.095	.093	1.22	-.09; .29
PA → WEng → Ext. Success	-.007	-.012	.064	-.109	-.16; .11
PA → Planning → Ext. Success	.141	.121	.107	1.32	-.06; .36

* $p < .05$, ** $p < .01$, *** $p < .001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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Table A9.9.ix. Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on external success via entrepreneurial self-efficacy, creative self-efficacy, goal orientations and work engagement.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → WEng → Ext. Success	.004	.009	.042	.095	-.07; .11
EO → CSE → WEng → Ext. Success	.000	-.004	.021	.000	-.06; .03
EO → MA → WEng → Ext. Success	.000	.000	.010	.000	-.02; .02
EO → PA → WEng → Ext. Success	-.001	-.001	.021	-.048	-.05; .04
PI → ESE → WEng → Ext. Success	.007	.017	.066	.106	-.09; .19
PI → CSE → WEng → Ext. Success	.000	-.002	.015	.000	-.04; .02
PI → MA → WEng → Ext. Success	.000	.000	.009	.000	-.01; .02
PI → PA → WEng → Ext. Success	.000	-.001	.016	.000	-.04; .03

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

t = (ab original) / (SD ab Bootstrapped)

Table A9.9.x. Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on external success via entrepreneurial self-efficacy, creative self-efficacy, goal orientations and planning.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → Planning → Ext. Success	-.011	-.008	.030	-.367	-.08; .05
EO → CSE → Planning → Ext. Success	.016	.017	.040	.400	-.05; .11
EO → MA → Planning → Ext. Success	-.007	-.008	.032	-.219	-.08; .06
EO → PA → Planning → Ext. Success	.019	.018	.041	.463	-.06; .11
PI → ESE → Planning → Ext. Success	-.020	-.012	.048	-.417	-.12; .08
PI → CSE → Planning → Ext. Success	.012	.015	.032	.375	-.03; .10
PI → MA → Planning → Ext. Success	.009	.007	.026	.346	-.04; .06
PI → PA → Planning → Ext. Success	-.007	-.004	.038	-.184	-.08; .07

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

t = (ab original) / (SD ab Bootstrapped)

Table A9.9.xi. Test of alternative indirect paths.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → Ext. Success	.068	.039	.118	.576	-.22; .29
EO → CSE → Ext. Success	-.101	-.081	.110	-.918	-.32; .11
EO → MA → Ext. Success	.006	-.001	.067	.090	-.14; .15
EO → PA → Ext. Success	-.001	-.014	.066	-.015	-.17; .11
EO → WEng → Ext. Success	.004	.018	.054	.007	-.06; .16
EO → Planning → Ext. Success	.133	.121	.110	1.21	-.06; .37
PI → ESE → Ext. Success	.118	.047	.172	.686	-.38; .33
PI → CSE → Ext. Success	-.079	-.053	.080	-.988	-.23; .09
PI → MA → Ext. Success	-.003	-.024	.050	-.060	-.16; .05
PI → PA → Ext. Success	.000	.014	.051	.000	-.08; .14
PI → WEng → Ext. Success	.008	.005	.080	.100	-.17; .17
PI → Planning → Ext. Success	.022	.010	.073	.301	-.14; .16

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

t = (ab original) / (SD ab Bootstrapped)

Finally, the total indirect effects were calculated across each sequential phase of the model (see Table A9.9.xii). None of the total indirect effects reached significance.

Table A9.9.xii. Test of total indirect effects.

Total Indirect effect (c - c')	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → external success	.116	.104	.182	.637	-.26; .46
PI → external success	.068	.019	.177	.384	-.36; .35
MA → external success	.111	.095	.127	.874	-.12; .32
PA → external success	.133	.111	.113	1.18	-.09; .36
ESE → external success	-.030	.004	.168	-.179	-.30; .37
CSE → external success	.044	.035	.098	.449	-.15; .25

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

t = (ab original) / (SD ab Bootstrapped)

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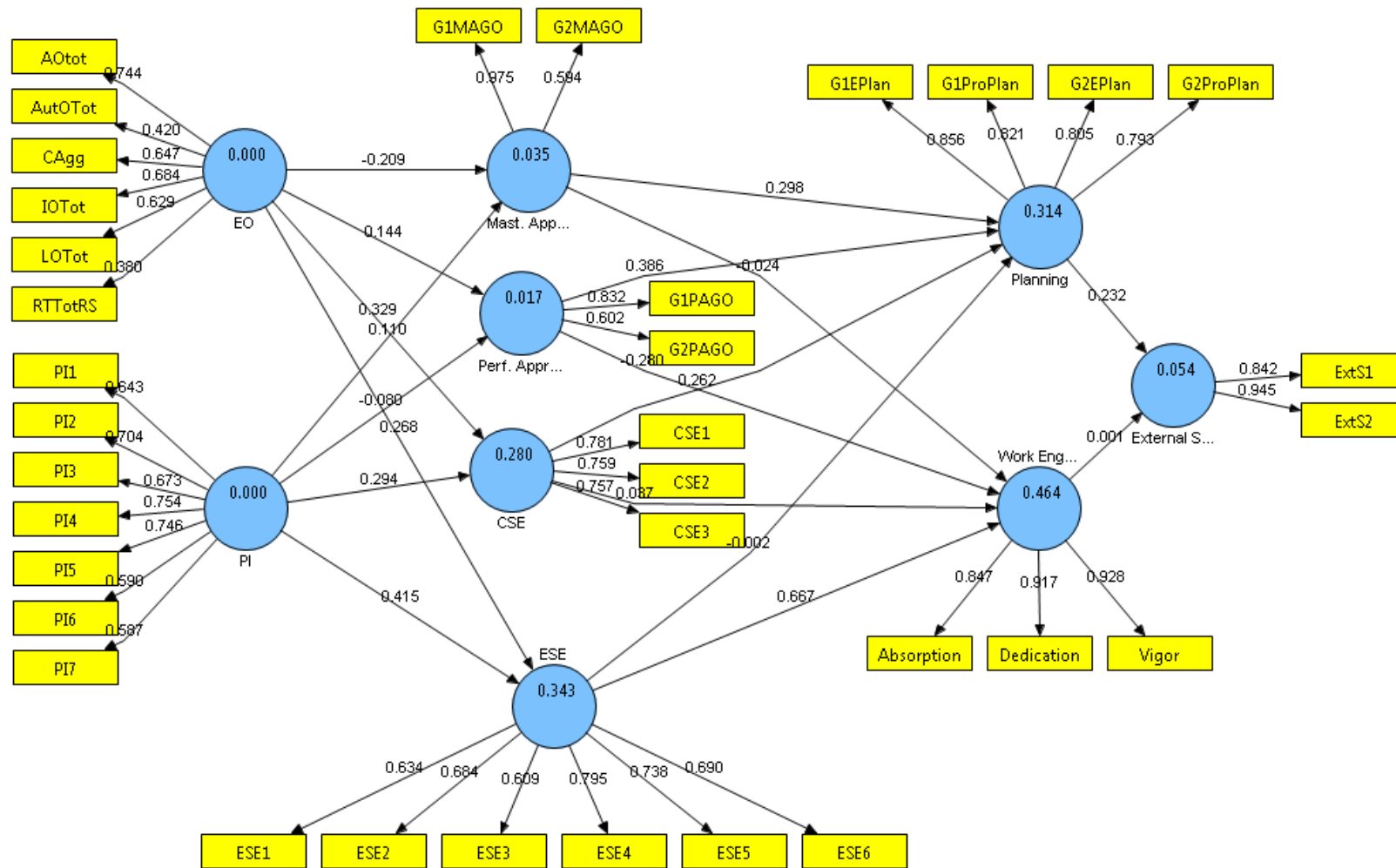


Figure A9.9.iii. Original PLS output for direct effects model examining motivational and volitional resources, goal orientations, planning and external success.

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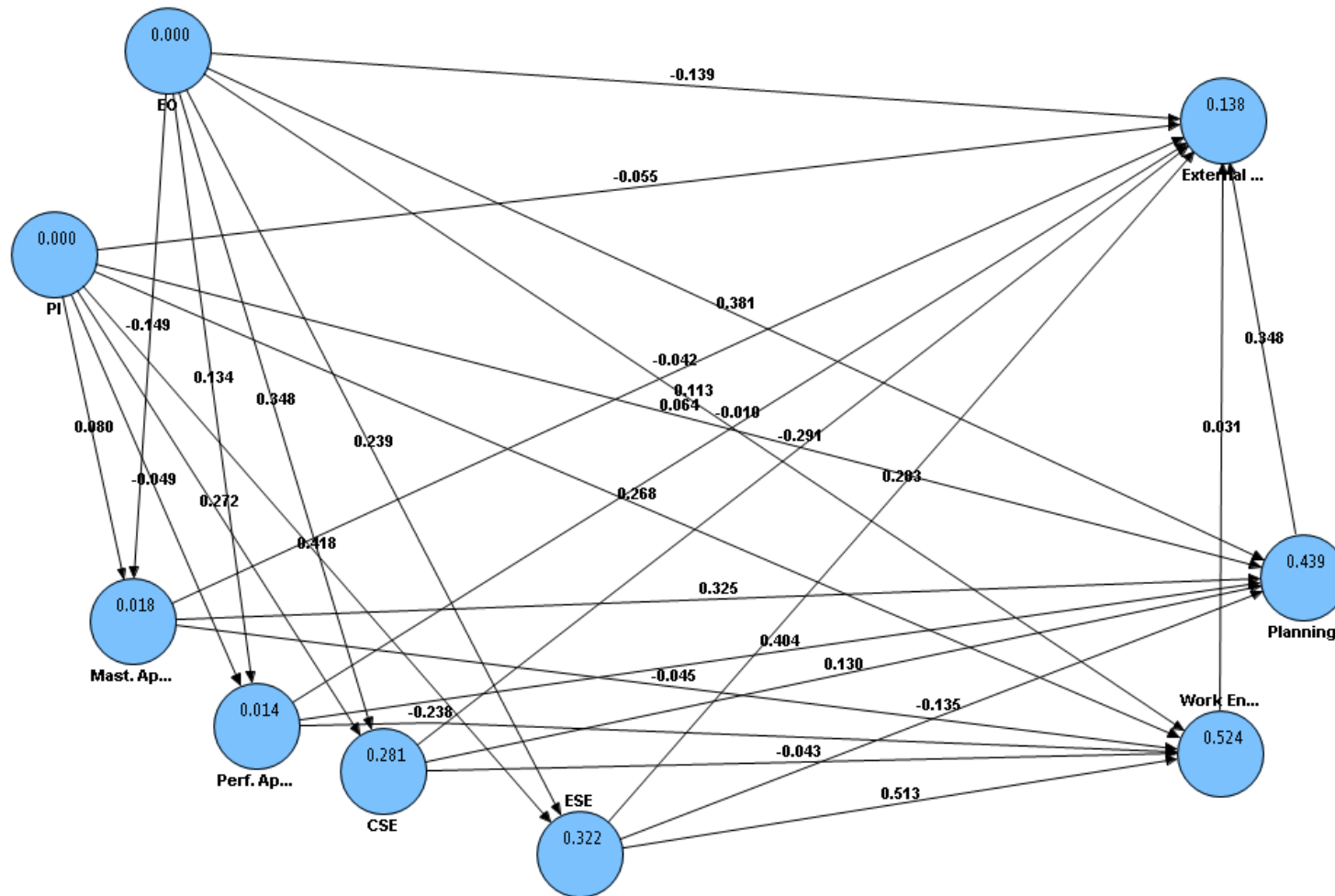


Figure A9.9.iv. Original PLS output for fully specified model examining motivational and volitional resources, goal orientations, planning and external success (measurement model has been hidden).

Appendix 9.10: Model estimating the direct effects of entrepreneurial orientations and personal initiative on planning

The focus of the analysis in this section relates to the direct effects of entrepreneurial orientations and personal initiative on planning. Firstly, looking at the measurement model (see Table A9.10.i), the composite reliabilities for planning and personal initiative were above the recommended criteria (0.7 respectively), which for entrepreneurial orientations, it was just below this at .693. The AVE for planning .701 which was above the recommended level of 0.5, but the AVE for entrepreneurial orientations and personal initiative were somewhat below at .308 and .344 respectively, which is in line with previous analysis. Looking at the factor loadings, only one of the entrepreneurial orientations indicators was above 0.8, with one other above 0.7, and the other four between 0.3 and 0.5. In relation to personal initiative, one of the indicators was above 0.8, one was just below this at .779 (LO), the loading for autonomy orientations was .552 and the remaining three were between .25 and .40. For personal initiative, one indicator loaded very highly at .920, the next most highly loading indicator loaded at .607, while three of the indicators loaded between .5 and .6. The remaining two indicators loaded between .35 and .45. These generally poor factor loadings are in line with previous analyses using these variables. For planning, all of the four indicators loaded above 0.8.

Moving to examine discriminant validity, while personal initiative displayed discriminant validity from both entrepreneurial orientations and planning, there appeared to be some overlap between these latter two variables (see Tables A9.10.ii and iii). The square root of the AVE for entrepreneurial orientations is lower than its correlation with personal initiative. Looking at the cross-loadings (Table A9.10.iii), none of the entrepreneurial orientations indicators load more highly on any other variable, but the indicators for planning load more highly on entrepreneurial orientations than some of its own indicators. This is likely a problem with the measurement of entrepreneurial orientations, and the low AVE, rather than a lack of discriminant validity per se.

Table A9.10.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.375	0.121	.693	.308
	AutO	0.552	0.290		
	CAgg	0.295	0.045		
	IO	0.801	0.469		
	LO	0.779	0.491		
	RTrs	0.258	0.087		
Personal Initiative	PI1	0.432	-0.044	.772	.344
	PI2	0.532	0.104		
	PI3	0.607	0.243		
	PI4	0.565	0.126		
	PI5	0.920	0.755		
	PI6	0.528	0.135		
	PI7	0.357	-0.057		
Planning	G1EPlan	0.820	0.294	.904	.701
	G1ProPlan	0.841	0.305		
	G2EPlan	0.849	0.298		
	G2ProPlan	0.839	0.297		

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Table A9.10.ii Latent variable correlations (entrepreneurial orientations, personal initiative and planning).

	1.	2.	3.
1. Entrepreneurial Orientations	0.555		
2. Personal Initiative	0.311	0.587	
3. Planning	0.617	0.206	0.837

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A9.10.iii. Cross loadings of indicators (entrepreneurial orientations, personal initiative and planning).

	Entrepreneurial Orientations	Personal Initiative	Planning
AOtot	0.375	0.343	0.131
AutOTot	0.552	0.254	0.314
CAgg	0.295	0.271	0.049
IOTot	0.801	0.168	0.508
LOTot	0.779	0.181	0.532
RTTotRS	0.258	0.183	0.094
PI1	0.194	0.432	-0.013
PI2	0.245	0.532	0.031
PI3	0.138	0.607	0.074
PI4	0.185	0.565	0.038
PI5	0.299	0.920	0.229
PI6	0.124	0.528	0.041
PI7	0.096	0.357	-0.017
G1EPlan	0.506	0.266	0.820
G1ProPlan	0.529	0.120	0.841
G2EPlan	0.517	0.142	0.849
G2ProPlan	0.515	0.165	0.839

Given that the purpose of the additional analysis outlined here is to examine the direct effects of entrepreneurial orientations and personal initiative on planning, when the other variables in the main analysis are not included, it was considered worthwhile continuing to examine the structural model, despite the issues with measurement outlined above. Entrepreneurial orientations and personal initiative combined had a large effect on planning, predicting 38.1% of the variance. The Q^2 estimations indicate that the model had predictive relevance (see Table A9.10.iv). Looking at the significance of the individual paths (see Table A9.10.v and Figure A9.10.i), entrepreneurial orientations had a large effect on planning, but personal initiative did not have a significant effect. However, this result should be interpreted with caution in light of the issues with the measurement model.

Table A9.10.iv. Estimation of the structural model (entrepreneurial orientations, personal initiative and planning).

	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
Planning	.381	Large	.793	.372

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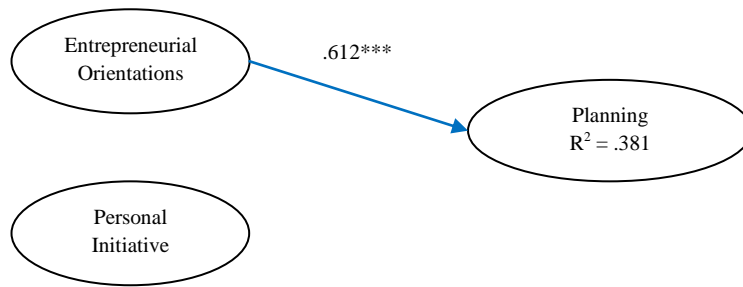


Figure A9.10.i. Results of Partial Least Squares analysis for the model investigating the relationships between entrepreneurial orientations, personal initiative, and planning. (***) $p < .001$; (***) $p < .01$; (*) $p < .05$; on-significant paths are not shown).

Table A9.10.v. Statistical results for Path Coefficients (entrepreneurial orientations, personal initiative, and planning).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → planning	0.612***	8.50	0.072	0.072	.471; .753	.527	Large
Personal initiative → planning	0.016	0.090	0.175	0.175	-.327; .359	.000	None

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

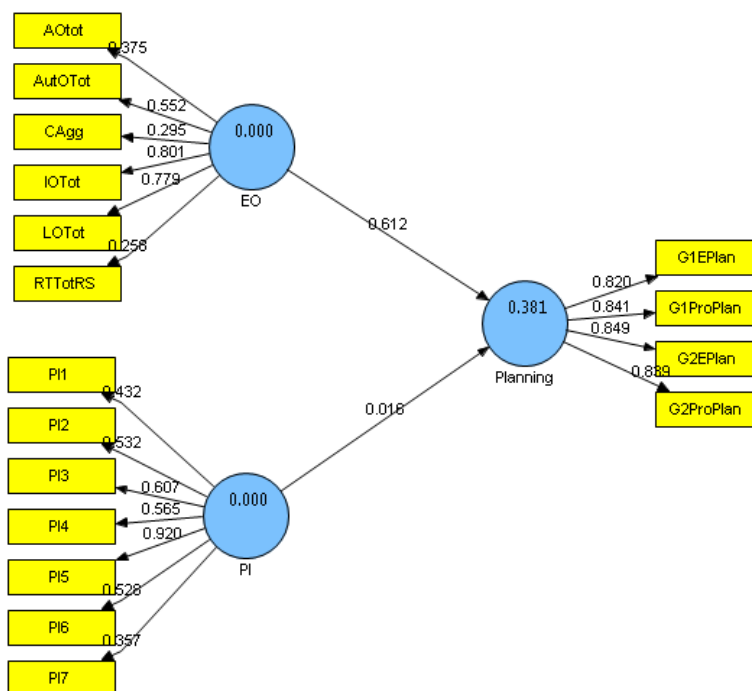


Figure A9.10.ii. Original PLS output for the model examining the direct effects of entrepreneurial orientations and personal initiative on planning.

Appendix 9.11: Model estimating the direct effects of entrepreneurial orientations and personal initiative on goal-setting

The focus of the analysis in this section relates to the direct effects of entrepreneurial orientations and personal initiative on goal-setting. Firstly, looking at the measurement model (see Table A9.11.i), the composite reliabilities were all above the recommended criteria (0.7) for each of the variables. The AVEs for the goal-setting variables were above the recommended level of 0.5, but the AVE for entrepreneurial orientations and personal initiative were somewhat below, in line with previous analysis. Looking at the factor loadings, two of the entrepreneurial orientations indicators were above 0.7, and the other four between 0.3 and 0.5. In relation to personal initiative, one of the indicators was above 0.7, two were just below 0.7, three were between 0.5 and 0.6 and the final indicator was just below 0.5. These generally poor factor loadings are in line with previous analyses using these variables. For goal difficulty, three of the four indicators were above 0.7, and the fourth was above 0.6. Finally, both indicators for goal-specificity were above 0.7.

The variables in the model displayed discriminant validity; the square root of the AVE for each latent variable was higher than any of the intercorrelations between the latent variables (see Table A9.11.ii), and the indicators for each LV loaded more highly on their own LV than on any other (see Table A9.11.iii).

Table A9.11.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.383	0.122	.705	.312
	AutO	0.485	0.210		
	CAGg	0.333	0.073		
	IO	0.841	0.527		
	LO	0.742	0.441		
	RTrs	0.346	0.164		
Personal Initiative	PI1	0.528	0.056	.817	.399
	PI2	0.592	0.033		
	PI3	0.692	0.274		
	PI4	0.688	0.232		
	PI5	0.850	0.609		
	PI6	0.516	0.103		
	PI7	0.470	0.066		
Goal-difficulty	G1DiffI	0.849	0.397	.857	.603
	G1DiffS	0.629	0.225		
	G2DiffI	0.832	0.390		
	G2DiffS	0.776	0.254		
Goal-specificity	G1Spec	0.764	0.476	.821	.697
	G2Spec	0.900	0.707		

Table A9.11.ii Latent variable correlations (entrepreneurial orientations, personal initiative and goal-setting).

	1.	2.	3.	4.
1. Entrepreneurial Orientations	0.558			
2. Goal-difficulty	0.502	0.776		
3. Goal-specificity	0.498	0.321	0.835	
4. Personal Initiative	0.309	0.097	0.234	0.631

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A9.11.iii Cross loadings of indicators (entrepreneurial orientations, personal initiative and goal-setting).

	Entrepreneurial Orientations	Goal-difficulty	Goal-specificity	Personal Initiative
AOtot	0.383	0.143	0.072	0.336
AutOTot	0.485	0.073	0.300	0.216
CAgg	0.333	0.086	0.044	0.278
IOTot	0.841	0.511	0.423	0.171
LOTot	0.742	0.373	0.409	0.176
RTTotRS	0.346	0.173	0.117	0.212
G1DiffI	0.478	0.849	0.290	0.160
G1DiffS	0.270	0.629	0.069	0.084
G2DiffI	0.458	0.832	0.344	0.070
G2DiffS	0.286	0.776	0.220	-0.050
G1Spec	0.338	0.266	0.764	0.093
G2Spec	0.477	0.275	0.900	0.268
PI1	0.227	0.049	0.009	0.528
PI2	0.260	0.113	-0.030	0.592
PI3	0.128	-0.089	0.182	0.692
PI4	0.204	0.093	0.084	0.688
PI5	0.304	0.143	0.262	0.849
PI6	0.120	0.023	0.045	0.516
PI7	0.115	0.060	0.010	0.470

Moving to examine the structural model, entrepreneurial orientations and personal initiative combined predict 25.5% of the variance in both goal-difficulty and goal-specificity, which are indicative of large effects. The Q^2 estimations indicate that the model had predictive relevance (see Table A9.11.iv). Looking at the significance of the individual paths (see Table A9.11.v and Figure A9.11.i), entrepreneurial orientations had medium-large effects on both goal-difficulty and goal-specificity, but personal initiative did not have a significant effect on either variable.

Table A9.11.iv. Estimation of the structural model (entrepreneurial orientations, personal initiative and goal-setting).

	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
Goal-difficulty	.255	Large	.579	.129
Goal -specificity	.255	Large	.690	.061

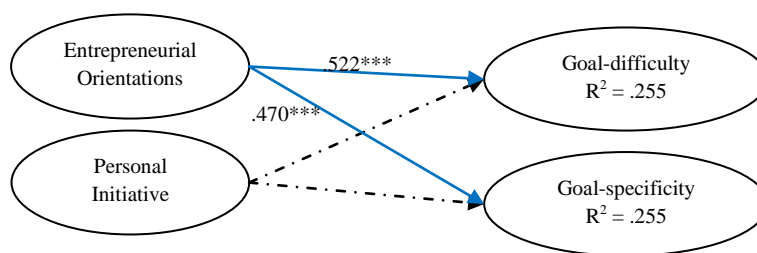


Figure A9.11.i. Results of Partial Least Squares analysis for the model investigating the relationships between entrepreneurial orientations, personal initiative, and goal-setting. (**p < .001; **p < .01; * p < .05; dashed lined indicate non-significant paths).

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Table A9.11.v. Statistical results for Path Coefficients (entrepreneurial orientations, personal initiative, and goal-setting).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → goal-difficulty	0.522***	6.25	0.083	0.083	.359; .685	.287	Medium-Large
Entrepreneurial orientations → goal-specificity	0.470***	4.51	0.104	0.104	.266; .674	.283	Medium-Large
Personal initiative → goal-difficulty	-0.064	0.402	0.160	0.160	-.378; .250	.003	Negligible
Personal initiative → goal-specificity	0.088	0.391	0.226	0.226	-.355; .531	.012	Very small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

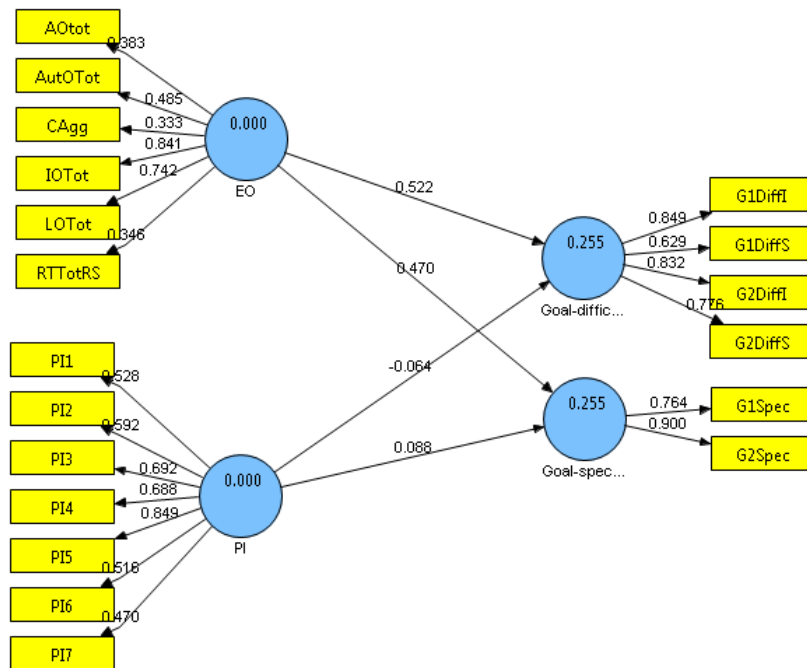


Figure A9.11.ii. Original PLS output for the model examining the direct effects of entrepreneurial orientations and personal initiative on goal-setting

Appendix 9.12: Model estimating the direct effects of entrepreneurial orientations and personal initiative on actions towards the goal.

The focus of the analysis in this section relates to the direct effects of entrepreneurial orientations and personal initiative on the actions that an individual takes to achieve their goals. Firstly, looking at the measurement model (see Table A9.12.i), the composite reliability of actions is .803, for entrepreneurial orientations is .691 and for personal initiative is .491. This latter estimate is quite poor, being well below the recommended criteria (0.7). The AVE for actions is .674, which is above the recommended level of 0.5, but the AVE for entrepreneurial orientations and personal initiative were below this criteria. Looking at the factor loadings, both of the indicators for the actions LV are above 0.7. However, only one of the entrepreneurial orientations indicators was above 0.7 (Lo), but two others are close to this at .688 and .670 (IO and AutO). The remaining three indicators are quite a bit below the recommended level. In relation to personal initiative, one of the indicators was above 0.8, but the rest were well below the recommended level of 0.7. These generally poor measurement results for entrepreneurial orientations and personal initiative are in line with previous analyses using these variables.

The variables in the model displayed discriminant validity; the square root of the AVE for each latent variable was higher than any their intercorrelations (see Table A9.11.ii), and the indicators for each LV loaded more highly on their own LV than on any other (see Table A9.11.iii). However, due to the poor factor loadings for personal initiative, some of the indicators pertaining to the two other latent variables loaded more highly than its own indicators.

Table A9.12.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.447	0.204	.690	.304
	AutO	0.670	0.428		
	CAGg	0.249	-0.011		
	IO	0.688	0.308		
	LO	0.765	0.516		
	RTrs	0.230	0.079		
Personal Initiative	PI1	0.011	-0.388	.491	.186
	PI2	0.189	0.036		
	PI3	0.401	0.355		
	PI4	0.204	-0.135		
	PI5	0.865	0.835		
	PI6	0.550	0.337		
	PI7	0.121	-0.207		
Actions	G1Actions	0.914	0.752	.803	.674
	G2Actions	0.715	0.436		

Table A9.12.ii Latent variable correlations (entrepreneurial orientations, personal initiative and actions).

	1.	2.	3.
1. Actions	0.821		
2. Entrepreneurial Orientations	0.514	0.551	
3. Personal Initiative	0.377	0.270	0.431

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A9.12.iii Cross loadings of indicators (entrepreneurial orientations, personal initiative and actions).

	Actions	Entrepreneurial Orientations	Personal Initiative
G1Action	0.914	0.487	0.416
G2Action	0.715	0.338	0.145
AOtot	0.177	0.447	0.279
AutOTot	0.371	0.670	0.259
CAgg	-0.010	0.249	0.191
IOTot	0.268	0.688	0.068
LOTot	0.448	0.765	0.163
RTTotRS	0.068	0.230	0.001
PI1	-0.127	0.194	0.011
PI2	0.012	0.250	0.189
PI3	0.116	0.168	0.401
PI4	-0.044	0.172	0.204
PI5	0.274	0.316	0.865
PI6	0.110	0.154	0.550
PI7	-0.068	0.075	0.121

Moving to examine the structural model, entrepreneurial orientations and personal initiative combined had a large effect on the actions one takes towards achieving ones goals, predicting 32.5% of the variance. The Q^2 estimations indicate that the model had predictive relevance (see Table A9.12.iv). Looking at the significance of the individual paths (see Table A9.12.v and Figure A9.12.i), entrepreneurial orientations had a medium-large effect on actions, while personal initiative had a small, but non-significant effect.

Table A9.12.iv. Estimation of the structural model (entrepreneurial orientations, personal initiative and actions).

	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
Actions	.325	Large	.658	.367

Table A9.12.v. Statistical results for Path Coefficients (entrepreneurial orientations, personal initiative, and actions).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → actions	.445***	5.53	.080	.080	.289; .602	.271	Medium-Large
Personal initiative → actions	.256	.915	.280	.280	-.292; .805	.093	Small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

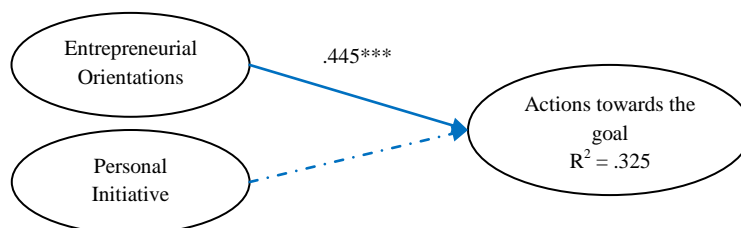


Figure A9.12.i. Results of Partial Least Squares analysis for the model investigating the relationships between entrepreneurial orientations, personal initiative, and actions. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; dashed lined indicate non-significant paths).

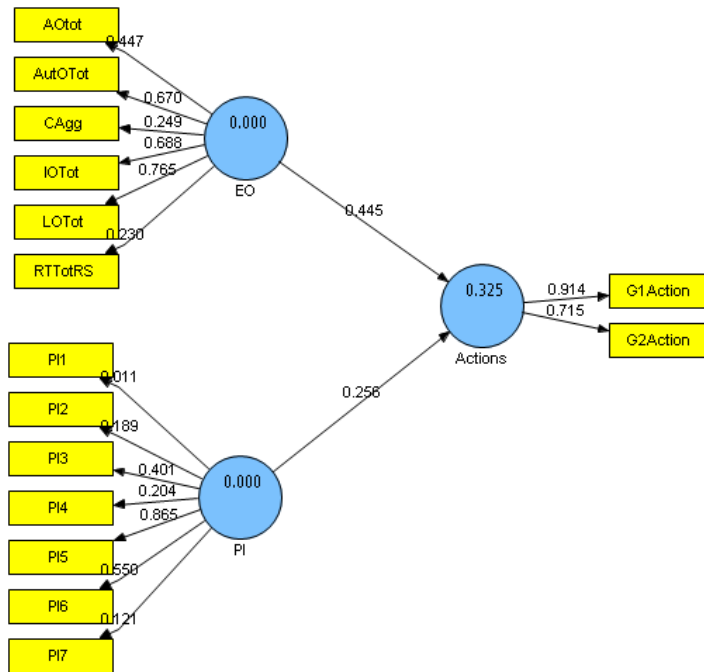


Figure A9.12.ii. Original PLS output for the model examining the direct effects of entrepreneurial orientations and personal initiative on actions taken to achieve ones goals.

Appendix 9.13: Model estimating the direct effects of entrepreneurial self-efficacy and creative self-efficacy on actions towards the goal.

The focus of the analysis in this section relates to the direct effects of entrepreneurial self-efficacy and creative self-efficacy on the actions one takes to achieve ones goals. Firstly, looking at the measurement model (see Table A9.13.i), the AVE and composite reliability were all above the recommended criteria (0.5 and 0.6 respectively) for each of the variables. However, a number of the indicators loaded somewhat lower than optimally. For entrepreneurial self-efficacy four of the six indicators were above 0.7, while the remaining two were lower at .596 and .469. For creative self-efficacy, one of the indicators loaded highly at 0.883, while the other two loaded between 0.6 and 0.7. For actions, one of the indicator loaded very highly at .955, but the second was a little below the recommended level of 0.7 at .629.

Table A9.13.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial self-efficacy	ESE1	0.596	0.117	.868	.532
	ESE2	0.712	0.043		
	ESE3	0.845	0.472		
	ESE4	0.829	0.248		
	ESE5	0.469	-0.055		
	ESE6	0.842	0.381		
Creative self-efficacy	CSE1	0.687	0.408	.782	.550
	CSE2	0.631	0.142		
	CSE3	0.883	0.714		
Actions	G1Actions	0.955	0.837	.784	.654
	G2Actions	0.629	0.319		

Table A9.13.ii Latent variable correlations (entrepreneurial self-efficacy, creative-self efficacy, actions).

	1.	2.	3.
1. Actions	0.809		
2. Creative Self-Efficacy	0.057	0.742	
3. Entrepreneurial Self-Efficacy	0.277	0.441	0.729

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A9.13.iii. Cross loadings of indicators (entrepreneurial self-efficacy, creative self-efficacy, actions).

	Actions	Creative Self Efficacy	Entrepreneurial Self Efficacy
G1Action	0.955	0.022	0.279
G2Action	0.629	0.121	0.136
CSE1	0.033	0.687	0.398
CSE2	0.012	0.631	0.385
CSE3	0.058	0.883	0.315
ESE1	0.073	0.661	0.596
ESE2	0.027	0.356	0.712
ESE3	0.292	0.307	0.845
ESE4	0.153	0.382	0.829
ESE5	-0.034	0.263	0.469
ESE6	0.236	0.323	0.842

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Looking to the assessment of discriminant validity, the Fornell-Larcker criterion is met (see Table A9.13.ii) as the square root of the AVE is higher than any of the inter-correlations between the latent variables. As a second check on discriminant validity, all of the indicators load more highly on their own latent variable than on any other, with the exception of one of the indicators (ESE1) for entrepreneurial self-efficacy, which loads more highly on creative self-efficacy (see Table A9.13.iii). Hence, although there are a number of small issues evident in the measurement of this model, overall it is reasonably adequate.

Examining the structural model indicates that the two types of self-efficacy (entrepreneurial and creative) in total explained 8.2% of the variance in actions towards ones goals (a small-medium effect). The Q^2 estimations indicate that the model had predictive relevance (see Table A9.13.iv). However, looking at the significance of the individual paths (see Table A9.13.v), neither entrepreneurial self-efficacy nor creative self-efficacy had a significant effect on actions towards ones goals. The original PLS output in shown in Figure A9.13.i.

Table A9.13.iv. Estimation of the structural model (entrepreneurial self-efficacy, creative self-efficacy, actions).

	R^2	R^2 effect size	Q^2 Cross validated commonality	Q^2 Cross validated redundancy
Actions	.082	Small-medium	.687	.251

Table A9.13.v. Statistical results for Path Coefficients (entrepreneurial self-efficacy, creative self-efficacy, and actions).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial self-efficacy → actions	0.313	0.865	0.362	0.362	-.397; 1.023	.003	Negligible
Creative self-efficacy → actions	-0.081	0.384	0.212	0.212	-.497; .335	-.002	Negligible

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

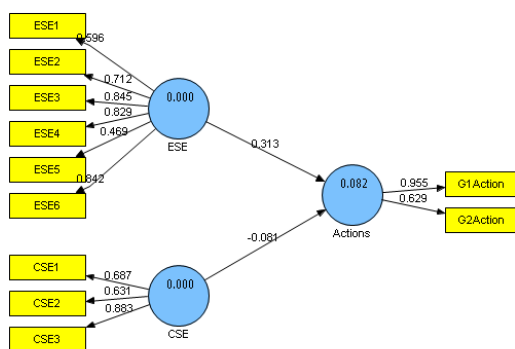


Figure A9.13.i. Original PLS output for the model examining the direct effects of entrepreneurial self-efficacy and creative self-efficacy on actions taken to achieve ones goals.

Appendix 9.14: Model investigating the direct and indirect effects of motivational resources, volitional resources, goal orientations, goal-setting and actions on objective success and self-perceptions of success.

Table A9.14.i Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.675	0.394	0.718	0.308
	AutO	0.544	0.316		
	CAGg	0.688	0.452		
	IO	0.472	0.129		
	LO	0.343	0.089		
Personal Initiative	RTrs	0.531	0.299	0.855	0.459
	PI1	0.695	0.198		
	PI2	0.761	0.206		
	PI3	0.680	0.173		
	PI4	0.705	0.157		
	PI5	0.667	0.276		
	PI6	0.594	0.213		
Entrepreneurial Self-efficacy	PI7	0.632	0.264	0.892	0.581
	ESE1	0.746	0.280		
	ESE2	0.777	0.180		
	ESE3	0.719	0.197		
	ESE4	0.862	0.240		
	ESE5	0.708	0.240		
Creative Self-efficacy	ESE6	0.753	0.176	0.818	0.603
	CSE1	0.828	0.496		
	CSE2	0.830	0.427		
Work Engagement	CSE3	0.658	0.356	0.910	0.771
	Absorption	0.835	0.274		
	Dedication	0.881	0.448		
Mastery Approach	Vigor	0.917	0.411	0.776	0.645
	G1MAGO	0.958	0.848		
	G2MAGO	0.609	0.308		
Performance Approach	G1PAGO	0.553	0.511	0.676	0.522
	G2PAGO	0.860	0.834		
Goal-difficulty	G1DiffI	0.816	0.393	0.854	0.599
	G1DiffS	0.555	0.135		
	G2DiffI	0.869	0.410		
	G2DiffS	0.817	0.303		
Goal-specificity	G1Spec	0.846	0.601	0.826	0.704
	G2Spec	0.831	0.591		
Actions	G1Actions	0.836	0.6165	0.813	0.685
	G2Actions	0.820	0.5914		
Objective Success	ObjSucc	1.00	1.00	1.00	1.00
Self-Perceptions of Success	SelfSucc1	0.788	0.392	0.829	0.619
	SelfSucc2	0.855	0.528		
	SelfSucc3	0.710	0.338		

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Table A9.14.ii Average Variance Extracted by constructs and correlations between constructs to assess Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Actions	.828											
2. Creative Self Efficacy	.040	.777										
3. Entrepreneurial Orientations	.258	.413	.555									
4. Entrepreneurial Self-Efficacy	.102	.575	.512	.762								
5. Goal-difficulty	.458	.300	.264	.097	.774							
6. Goal-specificity	.640	.119	.253	.032	.331	.839						
7. Mastery Approach	.046	-.006	-.193	-.119	.226	.187	.803					
8. Objective Success	.330	.085	.094	.077	.179	.114	-.285	1.00				
9. Personal Initiative	.048	.503	.436	.615	.078	.100	-.018	.074	.677			
10. Performance Approach	.286	.144	.289	.288	.140	.248	-.133	.129	.113	.722		
11. Self-perceptions of success	.264	.186	.165	.448	.100	.147	-.131	.302	.369	.227	.787	
12. Work Engagement	-.064	.357	.364	.561	.097	-	-.038	.003	.480	.012	.162	.878

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A9.14iii Cross-loadings for measurement model

	Actions	CSE	EO	ESE	Goal-difficulty	Goal-specificity	Mastery Approach	Objective Success	PI	Performance Approach	Self-perceptions of success	Work Engagement
G1Action	0.836	0.041	0.295	0.197	0.393	0.620	0.141	0.190	0.121	0.259	0.200	0.083
G2Action	0.820	0.024	0.129	-0.033	0.365	0.435	-0.069	0.360	-0.045	0.214	0.237	-0.196
CSE1	0.006	0.828	0.378	0.484	0.259	0.179	0.074	-0.011	0.421	0.032	0.148	0.327
CSE2	-0.013	0.830	0.268	0.485	0.181	0.069	0.006	-0.032	0.487	0.165	0.130	0.245
CSE3	0.118	0.658	0.313	0.358	0.264	0.003	-0.128	0.292	0.240	0.162	0.161	0.252
AOtot	0.181	0.229	0.675	0.394	0.145	0.066	-0.209	0.186	0.331	0.154	0.102	0.271
AutOTot	0.357	0.111	0.544	0.363	0.064	0.280	-0.053	0.059	0.183	0.221	0.295	0.11
CAgg	-0.030	0.365	0.688	0.371	0.081	0.04	-0.199	-0.061	0.301	0.197	0.117	0.246
IOTot	0.261	0.270	0.472	0.037	0.500	0.412	0.149	0.229	0.169	0.082	-0.002	0.170
LOTot	0.438	0.152	0.343	-0.003	0.383	0.408	0.127	0.210	0.138	0.173	0.230	0.159
RTTotRS	0.048	0.250	0.531	0.236	0.172	0.101	-0.115	-0.065	0.257	0.146	-0.137	0.250
ESE1	0.033	0.696	0.504	0.746	0.09	0.046	-0.015	0.046	0.563	0.152	0.262	0.538
ESE2	-0.012	0.402	0.263	0.777	0.012	-0.148	-0.119	0.01	0.364	0.246	0.398	0.377
ESE3	0.289	0.306	0.44	0.719	0.214	0.102	-0.097	0.123	0.449	0.308	0.324	0.284
ESE4	0.103	0.416	0.401	0.862	0.035	0.008	-0.07	0.019	0.499	0.285	0.437	0.462
ESE5	-0.108	0.335	0.314	0.708	0.093	-0.016	-0.188	0.048	0.458	0.142	0.245	0.543
ESE6	0.213	0.382	0.37	0.753	-0.025	0.151	-0.071	0.122	0.416	0.213	0.433	0.255
G1DiffI	0.358	0.341	0.284	0.152	0.816	0.304	0.227	0.057	0.18	0.146	0.097	0.068
G1DiffS	0.158	0.113	0.144	0.002	0.555	0.073	0.068	-0.008	0.096	-0.043	-0.087	-0.035
G2DiffI	0.42	0.287	0.258	0.121	0.869	0.335	0.226	0.181	0.064	0.159	0.138	0.201
G2DiffS	0.409	0.114	0.095	-0.037	0.817	0.214	0.118	0.271	-0.1	0.079	0.057	-0.021
G1Spec	0.543	0.086	0.141	-0.041	0.269	0.846	0.203	0.098	-0.015	0.174	-0.01	-0.084
G2Spec	0.530	0.115	0.286	0.096	0.286	0.831	0.109	0.092	0.187	0.244	0.263	0.016
G1MAGO	0.108	-0.069	-0.196	-0.13	0.247	0.201	0.958	-0.225	-0.054	-0.062	-0.083	-0.052
G2MAGO	-0.150	0.170	-0.087	-0.029	0.054	0.055	0.609	-0.308	0.089	-0.263	-0.198	0.018

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Table A9.14.iii (cont.)

	Actions	CSE	EO	ESE	Goal-difficulty	Goal-specificity	Mastery Approach	Objective Success	PI	Performance Approach	Self-perceptions of success	Work Engagement
ObjSucc5	0.330	0.085	0.094	0.077	0.179	0.114	-0.285	1.00	0.074	0.129	0.302	0.003
PI1	-0.135	0.293	0.351	0.369	0.037	-0.019	-0.033	-0.056	0.695	0.135	0.096	0.278
PI2	0.002	0.324	0.344	0.384	0.098	-0.045	0.001	-0.078	0.761	0.050	0.173	0.367
PI3	0.097	0.275	0.181	0.330	-0.097	0.166	-0.034	-0.034	0.680	-0.013	0.205	0.253
PI4	-0.048	0.283	0.198	0.285	0.094	0.045	-0.028	0.022	0.705	-0.077	0.196	0.305
PI5	0.252	0.354	0.427	0.554	0.134	0.258	-0.025	0.294	0.667	0.211	0.400	0.373
PI6	0.071	0.283	0.240	0.427	0.016	0.018	-0.034	0.131	0.594	0.107	0.254	0.489
PI7	-0.073	0.484	0.241	0.444	0.047	0.008	0.048	-0.020	0.632	0.033	0.316	0.191
G1PAGO	0.079	0.284	0.164	0.246	0.098	0.113	-0.047	0.056	0.062	0.553	0.163	-0.097
G2PAGO	0.295	-0.002	0.246	0.194	0.107	0.228	-0.131	0.120	0.097	0.860	0.172	0.073
SelfS1	0.189	0.220	0.262	0.447	-0.009	0.135	-0.230	0.315	0.491	0.185	0.788	0.283
SelfS2	0.255	0.201	0.167	0.384	0.108	0.182	-0.048	0.271	0.223	0.211	0.855	0.018
SelfS3	0.163	-0.019	-0.076	0.209	0.136	-0.006	-0.045	0.105	0.174	0.128	0.710	0.123
Absorption	-0.120	0.298	0.239	0.335	0.055	-0.073	-0.068	0.003	0.282	0.021	0.037	0.835
Dedication	-0.030	0.325	0.329	0.559	0.072	0.012	0.085	-0.037	0.496	-0.024	0.210	0.881
Vigor	-0.044	0.316	0.367	0.532	0.120	-0.066	-0.141	0.044	0.439	0.041	0.139	0.917

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Table A9.14.iv Estimation of the structural model (motivational and volitional resources, goal orientations, goal-setting, actions, objective success and self-perceptions of success).

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Entrepreneurial self-efficacy	.453	Large	.702	.328	.391	Large	.686	.300
Creative self-efficacy	.299	Large	.703	.271	.286	Large	.689	.259
Work Engagement	.341	Large	.795	.174	.374	Large	.795	.181
Mastery Approach	.043	Small	.798	.048	.002	Negligible	.746	.000
Performance Approach	.084	Small	.498	.165	.075	Small	.433	.204
Goal-difficulty	.168	Medium	.660	.186	.266	Large	.657	.193
Goal-specificity	.125	Medium	.667	.205	.265	Large	.646	.175
Actions	.482	Large	.730	.180	.553	Large	.729	.350
Objective success	.109	Medium	1.00	.241	.239	Medium-large	1.00	.302
Self-perceptions of success	.069	Small	.539	.038	.344	Large	.517	.135

Table A9.14.v Statistical results for Path Coefficients for direct effects only model (entrepreneurial orientations, personal initiative, domain specific self-efficacy, goal orientations, work engagement, goal-setting, actions, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	0.240*	2.02	0.119	0.119	.007; .473	.061	Small
Entrepreneurial orientations → entrepreneurial self-efficacy	0.302*	2.53	0.120	0.120	.067; .537	.139	Small-medium
Entrepreneurial orientations → mastery approach	-0.228	1.31	0.174	0.174	-.569; .113	.044	Small
Entrepreneurial orientations → performance approach	0.296*	1.89	0.157	0.157	-.012; .604	.078	Small
Personal Initiative → Creative self-efficacy	0.398**	3.18	0.125	0.125	.153; .643	.173	Medium
Personal initiative → entrepreneurial self-efficacy	0.484***	4.69	0.103	0.103	.282; .686	.351	Large
Personal initiative → mastery approach	0.081	0.538	0.151	0.151	-.215; .377	.007	Negligible
Personal initiative → performance approach	-0.017	0.120	0.138	0.138	-.287; .253	.000	None
Creative self-efficacy → goal-difficulty	0.348*	2.52	0.138	0.138	.078; .618	.099	Small
Creative self-efficacy → goal-specificity	0.141	1.07	0.131	0.131	-.116; .398	.016	Very small
Creative self-efficacy → work engagement	0.045	0.365	0.122	0.122	-.194; .284	.000	None
Entrepreneurial self-efficacy → goal-difficulty	-0.120	0.854	0.141	0.141	-.396; .156	.006	Negligible
Entrepreneurial self-efficacy → goal-specificity	-0.107	0.664	0.161	0.161	-.423; .209	.007	Negligible
Entrepreneurial self-efficacy → Work engagement	0.583***	5.37	0.108	0.108	.371; .795	.322	Medium-large
Mastery approach → goal-difficulty	0.235*	1.92	0.122	0.122	-.004; .474	.067	Small
Mastery approach → goal-specificity	0.214*	1.69	0.126	0.126	-.033; .461	.050	Small
Mastery approach → work engagement	0.010	0.094	0.103	0.103	-.192; .212	.002	Negligible

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Table A9.14.v (cont.)

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Performance approach → goal-difficulty	0.156	1.32	0.118	0.118	-.075; .387	.030	Small
Performance approach → goal-specificity	0.287*	2.40	0.120	0.120	.052; .522	.086	Small
Performance approach → work engagement	-0.161	1.07	0.150	0.150	-.455; .133	.038	Small
Goal-difficulty →actions	0.286**	3.25	0.088	0.088	.114; .458	.133	Small-medium
Goal-specificity → actions	0.542***	6.89	0.079	0.079	.387; .697	.496	Large
Work engagement →actions	-0.069	0.815	0.085	0.085	-.236; .098	.004	Negligible
Actions → self-perceptions of success	0.264**	3.20	0.082	0.082	.103; .425	N/A	Only predictor
Actions →objective success	0.330**	3.21	0.103	0.103	.128; .532	N/A	Only predictor

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table A9.14.vi Statistical results for Path Coefficients in fully specified model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, work engagement, goal-setting, actions, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	0.231*	1.91	0.121	0.121	-.006; .468	.057	Small
Entrepreneurial orientations → entrepreneurial self-efficacy	0.146	1.02	0.143	0.143	-.134; .426	.033	Small
Entrepreneurial orientations → mastery approach	-0.039	0.226	0.173	0.173	-.378; .300	.002	Negligible
Entrepreneurial orientations → performance approach	0.270*	1.77	0.152	0.152	-.028; .568	.067	Small
Entrepreneurial orientations → goal difficulty	0.396**	2.83	0.140	0.140	.122; .670	.166	Medium
Entrepreneurial orientations → goal specificity	0.423**	2.93	0.144	0.144	.141; .705	.185	Medium
Entrepreneurial orientations → work engagement	0.152	1.35	0.113	0.113	-.069; .373	.024	Small
Entrepreneurial orientations → actions	0.101	0.83	0.122	0.122	-.138; .340	.009	Very small
Entrepreneurial orientations →objective success	0.047	0.267	0.175	0.175	-.296; .390	.003	Negligible
Entrepreneurial orientations → self-perceptions of success	-0.065	0.370	0.174	0.174	-.406; .276	.000	None
Personal Initiative →Creative self-efficacy	0.403**	3.19	0.126	0.126	.156; .650	.175	Medium
Personal initiative →entrepreneurial self-efficacy	0.556***	5.58	0.100	0.100	.360; .752	.437	Large
Personal initiative → mastery approach	0.035	0.253	0.137	0.137	-.234; .304	.001	Negligible
Personal initiative → performance approach	0.013	0.102	0.131	0.131	-.244; .270	.000	None
Personal initiative → work engagement	0.203	1.39	0.146	0.146	-.081; .284	.042	Small
Personal initiative → goal difficulty	-0.143	0.968	0.148	0.148	-.463; .177	.010	Very small
Personal initiative → goal specificity	0.043	0.304	0.140	0.140	-.231; .317	.000	None
Personal initiative → actions	-0.019	0.153	0.126	0.126	-.266; .228	.007	Very small
Personal initiative → objective success	0.094	0.646	0.146	0.146	-.192; .380	.001	Negligible
Personal initiative → self-perceptions of success	0.295*	1.88	0.157	0.157	-.013; .603	.072	Small
Creative self-efficacy → work engagement	-0.020	0.133	0.147	0.147	-.308; .268	-.003	Negligible

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Table A9.14.vi (cont)

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Creative self-efficacy → goal difficulty	0.264*	1.83	0.145	0.145	-.020; .812	.059	Small
Creative self-efficacy → goal specificity	-0.002	0.018	0.133	0.133	-.263; .259	-.014	Very small
Creative self-efficacy → actions	-0.206*	1.74	0.118	0.118	-.437; .025	.054	Small
Creative self-efficacy → objective success	0.099	0.682	0.145	0.145	-.185; .383	.001	Negligible
Creative self-efficacy → self-perceptions of success	-0.117	0.618	0.189	0.189	-.487; .370	.008	Very small
Entrepreneurial self-efficacy → Work engagement	0.428**	2.85	0.150	0.150	.134; .722	.149	Medium
Entrepreneurial self-efficacy → goal difficulty	-0.119	0.763	0.155	0.155	-.423; .185	-.012	Very small
Entrepreneurial self-efficacy → goal specificity	-0.178	1.12	0.159	0.159	-.490; .134	.001	Negligible
Entrepreneurial self-efficacy → actions	0.210	1.48	0.142	0.142	-.068; .488	.043	Small
Entrepreneurial self-efficacy → objective success	-0.092	0.473	0.195	0.195	-.474; .106	-.001	Negligible
Entrepreneurial self-efficacy → self-perceptions of success	0.381*	1.73	0.221	0.221	-.052; .814	.059	Small
Mastery approach → work engagement	-0.012	0.132	0.093	0.093	-.194; .170	-.002	Negligible
Mastery approach → goal difficulty	0.179	1.24	0.145	0.145	-.105; .463	.042	Small
Mastery approach → goal specificity	0.191	1.59	0.120	0.120	-.044; .426	.045	Small
Mastery approach → actions	-0.123	0.960	0.128	0.128	-.374; .128	.022	Small
Mastery approach → self-perceptions of success	-0.190	1.52	0.124	0.124	-.433; .053	.050	Small
Mastery approach → objective success	-0.334*	2.33	0.144	0.144	-.616; -.052	.126	Small-medium
Performance approach → work engagement	-0.162	1.24	0.131	0.131	-.419; .095	.034	Small
Performance approach → goal difficulty	0.080	0.680	0.117	0.117	-.149; .309	.003	Negligible
Performance approach → goal specificity	0.223*	1.80	0.124	0.124	-.020; .466	.053	Small
Performance approach → actions	0.039	0.279	0.141	0.141	-.237; .315	.002	Negligible
Performance approach → self-perceptions of success	0.007	0.056	0.124	0.124	-.236; .250	.000	None
Performance approach → objective success	-0.032	0.225	0.142	0.142	-.310; .246	.001	Negligible
Work engagement → actions	-0.142	1.32	0.108	0.108	-.354; .070	.011	Very small
Work engagement → self-perceptions of success	-0.082	0.454	0.180	0.180	-.435; .270	.002	Negligible
Work engagement → objective success	-0.040	0.275	0.145	0.145	-.324; .244	.001	Negligible
Goal difficulty → actions	0.322***	3.48	0.092	0.092	.142; .502	.159	Medium
Goal difficulty → self-perceptions of success	0.025	0.140	0.181	0.181	-.330; .380	-.009	Very small
Goal difficulty → objective success	0.080	0.485	0.166	0.166	-.245; .405	.011	Very small
Goal specificity → actions	0.512***	5.28	0.097	0.097	.322; .702	.441	Large
Goal specificity → self-perceptions of success	0.064	0.448	0.143	0.143	-.216; .344	-.005	Negligible
Goal specificity → objective success	-0.115	0.749	0.153	0.153	-.415; .185	.005	Negligible
Actions → self-perceptions of success	0.159	0.920	0.172	0.172	-.178; .496	.011	Very small
Actions → objective success	0.343*	2.01	0.170	0.170	.010; .676	.078	Small

* $p < .05$; ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
 where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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Table A9.14.vii Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on goal-setting and work engagement, via entrepreneurial self-efficacy, creative self-efficacy and goal orientations.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → WEng	.062	.062	.069	.899	-.08; .20
EO → CSE → WEng	-.005	-.002	.039	-.128	-.08; .08
EO → ESE → Goal-difficulty	-.017	-.018	.036	-.472	-.10; .04
EO → CSE → Goal-difficulty	.061	.063	.050	1.22	-.02; .17
EO → ESE → Goal-specificity	-.026	-.027	.042	-.619	-.13; .04
EO → CSE → Goal-specificity	.000	-.001	.035	.000	-.08; .07
EO → MA → WEng	.000	.002	.019	.000	-.03; .05
EO → PA → WEng	-.044	-.048	.052	-.846	-.17; .04
EO → MA → Goal-difficulty	-.007	-.005	.040	-.175	-.10; .07
EO → PA → Goal-difficulty	.022	.018	.040	.550	-.07; .10
EO → MA → Goal-specificity	-.007	-.005	.037	-.189	-.09; .07
EO → PA → Goal-specificity	.060	.062	.051	1.18	-.02; .18
PI → ESE → WEng	.238*	.235	.095	2.51	.06; .44
PI → CSE → WEng	-.008	-.011	.065	-.123	-.16; .11
PI → ESE → Goal-difficulty	-.066	-.051	.087	-.759	-.21; .14
PI → CSE → Goal-difficulty	.106	.111	.071	1.49	-.01; .27
PI → ESE → Goal-specificity	-.099	-.082	.087	-1.14	-.25; .11
PI → CSE → Goal-specificity	-.001	.007	.059	-.017	-.10; .14
PI → MA → WEng	.000	.001	.014	.000	-.03; .03
PI → PA → WEng	-.002	.002	.027	-.074	-.05; .06
PI → MA → Goal-difficulty	.006	.004	.031	.194	-.06; .07
PI → PA → Goal-difficulty	.001	-.001	.018	.056	-.04; .04
PI → MA → Goal-specificity	.007	.005	.029	.241	-.05; .07
PI → PA → Goal-specificity	.003	.000	.033	.091	-.07; .07

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

Table A9.14.viii Test of the indirect effects of entrepreneurial self-efficacy, creative self-efficacy, mastery approach and performance approach on actions via work engagement and goal-specificity.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
ESE → WEng → actions	-.061	-.063	.055	-1.11	-.19; .03
ESE → goal difficulty → actions	-.038	-.032	.053	-.717	-.14; .07
ESE → goal specificity → actions	-.091	-.085	.087	-1.05	-.27; .08
CSE → WEng → actions	.003	.004	.028	.107	-.05; .07
CSE → goal difficulty → actions	.085	.084	.052	1.63	-.01; .20
CSE → goal specificity → actions	.000	.004	.068	.000	-.13; .14
MA → WEng → actions	.002	.001	.017	.118	-.03; .04
MA → goal difficulty → actions	.058	.050	.046	1.26	-.05; .14
MA → goal specificity → actions	.098	.088	.068	1.44	-.04; .24
PA → WEng → actions	.023	.023	.031	.605	-.03; .10
PA → goal difficulty → actions	.026	.023	.038	.684	-.05; .10
PA → goal specificity → actions	.114*	.111	.069	1.65	-.02; .26

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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Table A9.14.ix Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on actions, via entrepreneurial self-efficacy, creative self-efficacy, goal orientations, goal-setting and work engagement.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO →ESE →WEng → actions	-.009	-.010	.015	-.600	-.05; .01
EO → CSE →WEng → actions	.001	.001	.008	.125	-.02; .02
EO →MA →WEng → actions	.000	.000	.003	.000	-.01; .01
EO → PA →WEng → actions	.006	.007	.012	.500	-.01; .04
EO →ESE →goal difficulty → actions	-.006	-.006	.012	-.500	-.03; .01
EO → CSE →goal difficulty → actions	.020	.020	.017	1.18	.00; .06
EO →MA →goal difficulty → actions	-.002	-.002	.012	-.167	-.03; .02
EO → PA →goal difficulty → actions	.007	.005	.013	.538	-.02; .03
EO →ESE →goal specificity → actions	-.013	-.015	.023	-.565	-.07; .02
EO → CSE →goal specificity → actions	.000	-.001	.018	.000	-.04; .04
EO →MA →goal specificity → actions	-.004	-.003	.020	-.200	-.05; .04
EO → PA →goal specificity → actions	.031	.032	.028	1.11	-.01; .10
PI →ESE →WEng →actions	-.034	-.034	.031	-1.10	-.11; .01
PI → CSE →WEng → actions	.001	.002	.012	.083	-.02; .03
PI →MA →WEng →actions	.000	.000	.003	.000	-.01; .00
PI → PA →WEng → actions	.000	.000	.005	.000	-.01; .01
PI →ESE →goal difficulty →actions	-.021	-.017	.030	-.084	-.08; .04
PI → CSE →goal difficulty → actions	.034	.034	.025	1.36	.00; .09
PI →MA →goal difficulty →actions	.002	.002	.010	.200	-.02; .02
PI → PA →goal difficulty → actions	.000	.000	.006	.000	-.01; .01
PI →ESE →goal specificity →actions	-.051	-.044	.048	-1.06	-.14; .05
PI → CSE →goal specificity → actions	.000	.004	.030	.000	-.05; .07
PI →MA →goal specificity →actions	.003	.003	.015	.200	-.03; .04
PI → PA →goal specificity → actions	.001	.000	.017	.059	-.04; .04

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

Table A9.14.x Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on objective success and self-perceptions of success, via domain specific self-efficacy, goal orientations, work engagement, goal-setting and actions.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO →ESE →Goal-difficulty →Actions → Obj. Success	-.001	-.002	.005	-.200	-.01; .00
EO →ESE → Goal-difficulty →Actions → Self-perceptions of Success	-.002	-.001	.003	-.667	-.01; .00
EO →ESE →Goal-specificity →Actions → Obj. Success	-.002	-.005	.010	-.200	-.03; .01
EO →ESE → Goal-specificity →Actions → Self-perceptions of Success	-.004	-.002	.005	-.800	-.02; .01
EO →ESE →work engagement →Actions → Obj. Success	-.001	-.004	.006	-.167	-.02; .00
EO →ESE → work engagement →Actions → Self-perceptions of Success	-.003	-.001	.003	-1.00	-.01; .00
EO → CSE → Goal-difficulty →actions → Obj. Success	.003	.007	.008	.375	.00; .03
EO → CSE → Goal-difficulty →actions → Self-perceptions of success	.007	.003	.005	1.40	.00; .01
EO → CSE → Goal-specificity →actions → Obj. Success	.000	.000	.007	.000	-.02; .01
EO → CSE → Goal-specificity →actions → Self-perceptions of success	.000	.000	.004	.000	-.01; .01
EO → CSE → work engagement →actions → Obj. Success	.000	.000	.003	.000	-.01; .01
EO → CSE → work engagement →actions → Self-perceptions of success	.000	.000	.002	.000	.00; .00

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Indirect path	Orig. ab	Mean Bootstrapped ab	Bootstrapped Sd	<i>t</i>	BC CI ₉₅
EO → MA → Goal-difficulty → actions → Obj. Success	.000	-.001	.005	.000	-.01; .01
EO → MA → Goal-difficulty → actions → Self-perceptions of Success	-.001	.000	.003	-.333	-.01; .00
EO → MA → Goal-specificity → actions → Obj. Success	-.001	-.001	.008	-.125	-.02; .02
EO → MA → Goal-specificity → actions → Self-perceptions of Success	-.001	.000	.005	-.200	-.01; .01
EO → MA → work engagement → actions → Obj. Success	.000	.000	.001	.000	.00; .00
EO → MA → work engagement → actions → Self-perceptions of Success	.000	.000	.001	.000	.00; .00
EO → PA → Goal-difficulty → actions → Obj. Success	.001	.002	.005	.200	-.01; .01
EO → PA → Goal-difficulty → actions → Self-perceptions of success	.002	.001	.003	.667	.00; .01
EO → PA → Goal-specificity → actions → Obj. Success	.005	.011	.012	.417	.00; .04
EO → PA → Goal-specificity → actions → Self-perceptions of success	.011	.005	.008	1.38	-.01; .03
EO → PA → work engagement → actions → Obj. Success	.001	.003	.005	.200	.00; .02
EO → PA → work engagement → actions → Self-perceptions of success	.002	.001	.003	.667	.00; .01
PI → ESE → Goal-difficulty → actions → Obj. Success	-.003	-.006	.012	-.250	-.03; .02
PI → ESE → Goal-difficulty → actions → Self-perceptions of Success	-.007	-.003	.007	-1.00	-.02; .01
PI → ESE → Goal-specificity → actions → Obj. Success	-.008	-.016	.021	-.381	-.07; .02
PI → ESE → Goal-specificity → actions → Self-perceptions of Success	-.017	-.006	.013	-1.31	-.04; .02
PI → ESE → work engagement → actions → Obj. Success	-.005	-.012	.013	-.385	-.05; .00
PI → ESE → work engagement → actions → Self-perceptions of Success	-.012	-.005	.009	-1.33	-.03; .01
PI → CSE → Goal-difficulty → actions → Obj. Success	.005	.011	.011	.455	.00; .04
PI → CSE → Goal-difficulty → actions → Self-perceptions of success	.012	.005	.008	1.50	-.01; .02
PI → CSE → Goal-specificity → actions → Obj. Success	.000	.001	.011	.000	-.02; .03
PI → CSE → Goal-specificity → actions → Self-perceptions of success	.000	.001	.007	.000	-.01; .02
PI → CSE → work engagement → actions → Obj. Success	.000	.001	.004	.000	-.01; .01
PI → CSE → work engagement → actions → Self-perceptions of success	.000	.000	.003	.000	.00; .01
PI → MA → Goal-difficulty → actions → Obj. Success	.000	.000	.004	.000	-.01; .01
PI → MA → Goal-difficulty → actions → Self-perceptions of Success	.001	.000	.002	.500	.00; .01
PI → MA → Goal-specificity → actions → Obj. Success	.000	.001	.007	.000	-.01; .01
PI → MA → Goal-specificity → actions → Self-perceptions of Success	.001	.000	.004	.250	-.01; .01
PI → MA → work engagement → actions → Obj. Success	.000	.000	.001	.000	.00; .00
PI → MA → work engagement → actions → Self-perceptions of Success	.000	.000	.001	.000	.00; .00
PI → PA → Goal-difficulty → actions → Obj. Success	.000	.000	.002	.000	.00; .01
PI → PA → Goal-difficulty → actions → Self-perceptions of success	.000	.000	.001	.000	.00; .00
PI → PA → Goal-specificity → actions → Obj. Success	.000	.000	.007	.000	-.01; .02
PI → PA → Goal-specificity → actions → Self-perceptions of success	.001	.000	.004	.250	-.01; .01
PI → PA → work engagement → actions → Obj. Success	.000	.000	.002	.000	.00; .00
PI → PA → work engagement → actions → Self-perceptions of success	.000	.000	.001	.000	.00; .00

* $p < .05$, ** $p < .01$; *** $p < .001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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Table A9.14.xi Test of alternative indirect paths.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO →ESE → Obj. Success	-.028	-.018	.042	-.667	-.12; .06
EO →ESE → Self-perceptions of Success	.056	.060	.080	.700	-.07; .24
EO →CSE → Obj. Success	.023	.024	.040	.575	-.05; .12
EO →CSE → Self-perceptions of Success	-.027	-.033	.054	-.500	-.16; .05
EO →MA → Obj. Success	.013	.015	.062	.210	-.11; .15
EO →MA → Self-perceptions of Success	.007	.010	.037	.104	-.06; .09
EO →PA → Obj. Success	-.009	-.004	.048	-.188	-.11; .10
EO →PA → Self-perceptions of Success	-.022	.005	.041	-.537	-.08; .10
EO →WEng → Obj. Success	-.006	-.007	.028	-.214	-.07; .05
EO →WEng → Self-perceptions of Success	-.012	-.010	.035	-.343	-.09; .06
EO →goal-difficulty → Obj. Success	.032	.032	.073	.438	-.12; .17
EO →goal-difficulty → Self-perceptions of Success	.010	.016	.081	.123	-.14; .19
EO →goal-specificity → Obj. Success	-.049	-.053	.071	-.690	-.21; .07
EO →goal-specificity → Self-perceptions of Success	.027	.025	.066	.409	-.11; .17
EO → actions → Obj. Success	.035	.039	.052	.673	-.04; .16
EO → actions → Self-perceptions of success	.016	.020	.035	.457	-.03; .11
EO → goal-difficulty → actions	.128*	.130	.064	2.00	.02; .27
EO → goal-specificity → actions	.217**	.213	.084	2.58	.05; .38
EO → work engagement → action	-.022	-.024	.028	-.786	-.10; .01
PI →ESE → Obj. Success	-.051	-.050	.112	-.455	-.28; .17
PI →ESE → Self-perceptions of Success	.212*	.211	.122	1.74	-.02; .47
PI →CSE → Obj. Success	.040	.030	.063	.635	-.10; .15
PI →CSE → Self-perceptions of Success	-.047	-.057	.085	-.553	-.24; .09
PI →MA → Obj. Success	-.012	-.016	.047	-.255	-.12; .07
PI →MA → Self-perceptions of Success	-.007	-.009	.028	-.250	-.07; .05
PI →PA → Obj. Success	.000	.000	.019	.000	-.04; .04
PI →PA → Self-perceptions of Success	-.001	.002	.017	-.588	-.04; .04
PI →WEng → Obj. Success	-.008	-.010	.036	-.222	-.10; .06
PI →WEng → Self-perceptions of Success	-.017	-.016	.047	-.362	-.13; .08
PI →goal-difficulty → Obj. Success	-.011	-.009	.038	-.289	-.09; .07
PI →goal-difficulty → Self-perceptions of Success	-.004	-.006	.040	-.100	-.10; .07
PI →goal-specificity → Obj. Success	-.005	-.004	.028	-.179	-.07; .05
PI →goal-specificity → Self-perceptions of Success	.003	.003	.023	.130	-.04; .06
PI → actions → Obj. Success	-.007	-.005	.047	-.149	-.11; .09
PI → actions → self-perceptions of success	-.003	.001	.029	-.103	-.06; .06
PI → goal-difficulty → actions	-.046	-.048	.049	-.938	-.16; .05
PI → goal-specificity → actions	.022	.018	.072	.306	-.12; .17
PI → work engagement → action	-.029	-.031	.034	-.853	-.11; .02
ESE → actions → Obj. Success	.072	.074	.066	1.09	-.03; .23
ESE → actions → self-perceptions of success	.033	.030	.046	.717	-.05; .14
CSE → actions → Obj. Success	-.071	-.064	.053	-1.34	-.19; .02
CSE → actions → self-perceptions of success	-.033	-.030	.042	-.786	-.13; .04
MA → actions → Obj. Success	-.042	-.042	.057	-.737	-.18; .05
MA → actions → self-perceptions of success	-.020	-.017	.035	-.571	-.10; .04
PA → actions → Obj. Success	-.013	.006	.053	-.245	-.11; .11
PA → actions → self-perceptions of success	.006	.005	.034	.176	-.06; .09

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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Table A9.14.xii Test of total indirect effects.

Total Indirect effect ($\sum ab - c'$)	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	<i>t</i>	BC CI ₉₅
EO → goal-difficulty	.059	.059	.072	.819	-.087; .190
EO → goal-specificity	.036	.028	.074	.486	-.127; .166
EO → WEng	.015	.014	.076	.197	-.139; .166
EO → Actions	.351**	.351	.125	2.81	.100; .575
EO → objective success	.147	.150	.111	1.32	-.077; .360
EO → self-perceptions of success	.137	.150	.122	1.12	-.091; .390
PI → goal-difficulty	.043	.059	.095	.453	-.122; .246
PI → goal-specificity	-.091	-.072	.093	-.978	-.253; .120
PI → WEng	.227*	.225	.094	2.41	.042; .409
PI → Actions	-.086	-.088	.129	-.667	-.339; .170
PI → objective success	-.078	-.086	.109	-.716	-.307; .125
PI → self-perceptions of success	.105	.090	.133	.789	-.166; .351
MA → actions	.157	.135	.098	1.60	-.078; .323
MA → objective success	.004	-.003	.087	.046	-.182; .165
MA → self-perceptions of success	.023	.018	.064	.359	-.108; .151
PA → actions	.163*	.159	.092	1.77	-.020; .346
PA → objective success	.057	.046	.081	.704	-.118; .205
PA → self-perceptions of success	.062	.061	.068	.912	-.059; .205
ESE → actions	-.190	-.182	.133	-1.43	-.456; .071
ESE → objective success	.001	.003	.108	.009	-.216; .214
ESE → self-perceptions of success	-.046	-.053	.128	-.359	-.341; .168
CSE → actions	.087	.091	.102	.853	-.105; .298
CSE → objective success	-.019	-.006	.084	-.226	-.172; .169
CSE → self-perceptions of success	-.011	-.005	.086	-.128	-.167; .183

* $p < .05$, ** $p < .01$; *** $p < .001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

(Lindley & Scott, 1984)

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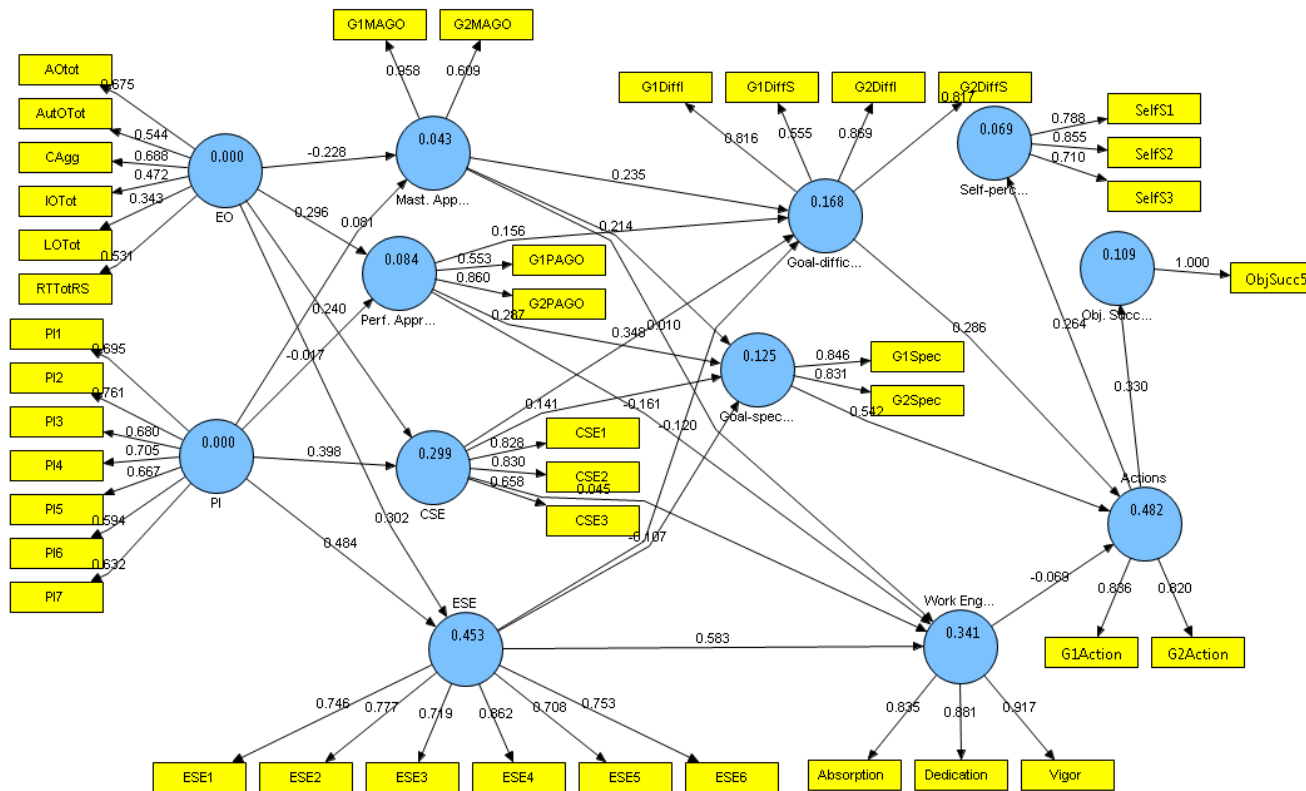


Figure A9.14.i. Original PLS output for direct effects only model investigating entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, goal, orientations, work engagement, goal-setting, actions, objective success and self-perceptions of success.

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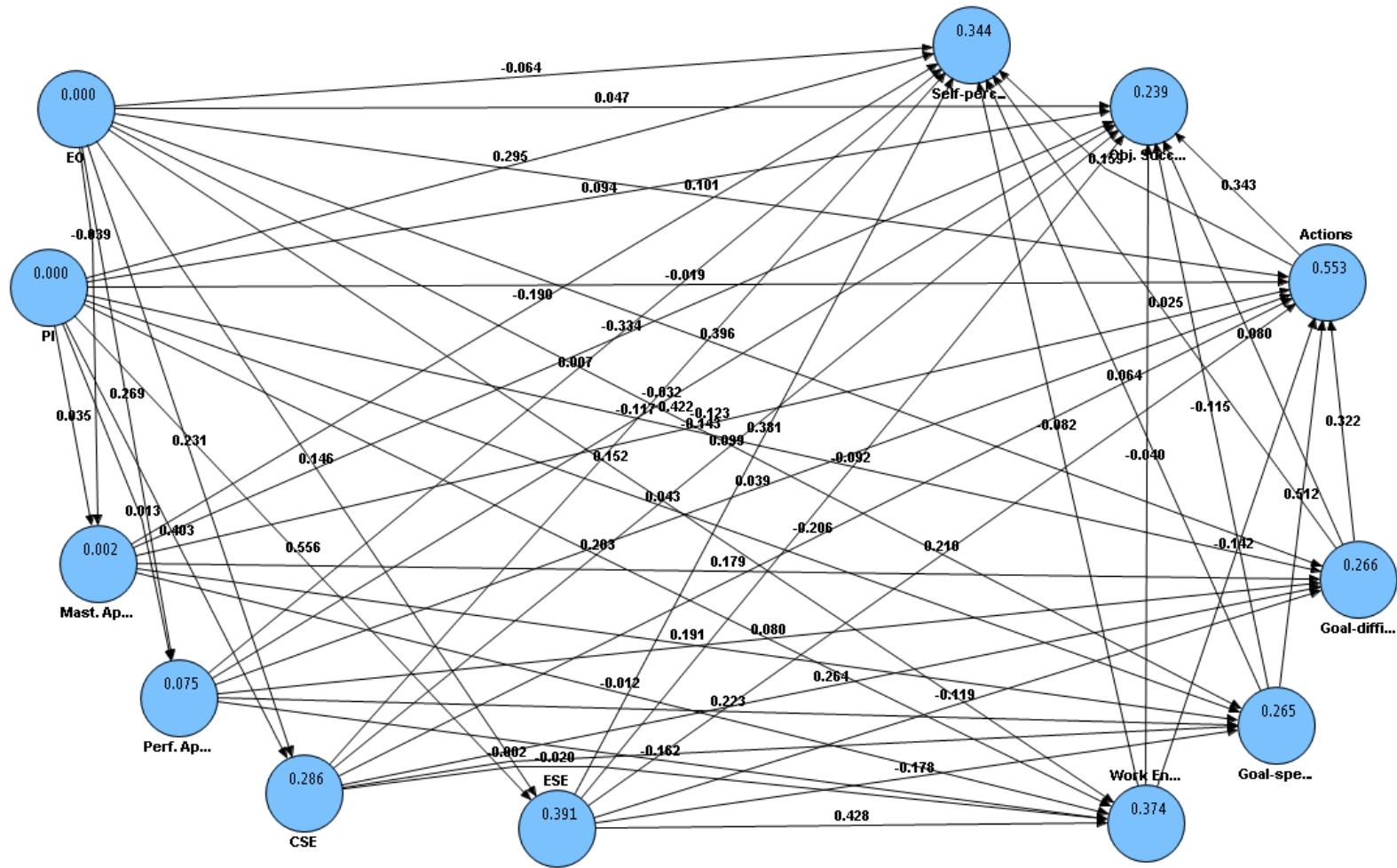


Figure A9.14.ii. Original PLS output for fully specified model investigating entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, goal orientations, work engagement, goal-setting, actions, objective success and self-perceptions of success (measurement model is not shown).

Appendix 9.15: Model estimating the direct and indirect effects of motivational and volitional resources, goal orientations, goal-setting and actions on external success

The focus of this analysis is to examine the impact of the variables investigated in section 9.3.2. of chapter 9 but with external success rather than objective success or self-perceptions of success. In essence, this analysis investigates whether the same effects hold for external success as for the other two forms of success (objective success and self-perceptions of success).

The number of participants with available data for the external success measure reduces the sample size to 48 participants. The sample size requirements for this model are the same as those outlined in Figure 9.6 for the model investigating only direct effects between the sequential stages of the model, with a maximum of four predictors for any one variable (see Table 10.8). In this version of the analysis, this sample size will detect only large effects as significant. However, the fully specified model, where all direct and indirect paths are included, has a maximum of ten predictors for external success, and the sample size for this model is not sufficient. However, both versions of the model are calculated for comparative purposes. Effect size estimations are not affected by sample size, and in this analysis, may provide a more accurate estimation of the true effect. The results of the measurement model shown in this section pertain to the model which includes only direct effects between the sequential stages of the model. The fully specified model was also calculated, but as the results of the measurement model for both versions are very similar, they are presented only once.

An overview of the measurement model is outlined in Table A9.15.i. Similar to the previous analyses which included the other two success measures, the AVEs for external success, actions, work engagement, goal difficulty, goal specificity, creative self-efficacy, and both goal orientations measures were above the required criteria of 0.5. However, the AVE for entrepreneurial orientations, personal initiative and entrepreneurial self-efficacy were below this (.361; .456 and .479 respectively). The composite reliability for all variables was above the required level of 0.6, except for entrepreneurial self-efficacy, which was slightly below this at 0.587. Looking at the factor loadings for entrepreneurial orientations, one of the indicators loaded above 0.7, while another loaded very close to this at .698. Two other indicators loaded between 0.6 and 0.7 and the final two indicators were somewhat lower at .407 and .383. For personal initiative, three of the seven indicators loaded above 0.7, while another was a little under this at .674. The final three indicators ranged from .583 to .648. For entrepreneurial self-efficacy two of the indicators were above 0.7, while the other four were between 0.6 and 0.7. Similarly, for goal difficulty, three of the four indicators loaded highly, but the fourth loaded at .572. For both of the goal orientations, one of their respective indicators loaded above 0.7, but the second was below this. The factor loadings for the indicators pertaining to creative self-efficacy, work engagement, goal specificity, actions and external success were all high.

Tables A9.15ii and A9.15.iii outline the information needed to examine the discriminant validity of the latent variables. In Table A9.15.ii, none of the correlations between two variables are higher than the respective square root of the AVE for that latent variable, which provides one form of support for discriminant validity in the model. Table A9.15.iii outlines the cross-loadings of each indicator on the latent variables. The majority of indicators loaded more highly on their own latent variable than on any other. However, there were three problematic indicators. RT loaded on its own latent variable (entrepreneurial orientations) at .383, and on work engagement at .405. ESE1 loaded at .645 on its own latent variable (entrepreneurial self-efficacy), but loaded at .729 on creative self-efficacy. G2PAGO loaded at .189 on its own latent variable (performance approach goal orientations), but loaded more highly on external success, entrepreneurial self-efficacy and actions. This latter issue however is more likely due to the very low loading on its own variable.

These findings for the measurement model are largely in line with the results from the main analysis outlined in section 9.3.2 of chapter 10.

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Table A9.15.i. Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.734	0.392	0.762	0.361
	AutO	0.407	0.225		
	CAGg	0.650	0.273		
	IO	0.698	0.282		
	LO	0.635	0.243		
Personal Initiative	RTrs	0.383	0.238	0.853	0.456
	PI1	0.648	0.192		
	PI2	0.709	0.184		
	PI3	0.674	0.144		
	PI4	0.763	0.188		
	PI5	0.740	0.307		
	PI6	0.586	0.227		
Entrepreneurial Self-efficacy	ESE1	0.645	0.350	0.845	0.479
	ESE2	0.674	0.162		
	ESE3	0.608	0.221		
	ESE4	0.790	0.242		
	ESE5	0.745	0.308		
	ESE6	0.674	0.163		
Creative Self-efficacy	CSE1	0.795	0.486	0.809	0.586
	CSE2	0.739	0.388		
	CSE3	0.761	0.429		
Work Engagement	Absorption	0.847	0.294	0.926	0.807
	Dedication	0.918	0.405		
	Vigor	0.927	0.409		
Mastery Approach	G1MAGO	0.968	0.858	0.786	0.659
	G2MAGO	0.618	0.275		
Performance Approach	G1PAGO	0.991	0.984	0.587	0.509
	G2PAGO	0.189	0.132		
Goal-difficulty	G1DiffI	0.823	0.398	0.859	0.609
	G1DiffS	0.572	0.168		
	G2DiffI	0.856	0.343		
	G2DiffS	0.837	0.338		
Goal-specificity	G1Spec	0.827	0.570	0.829	0.708
	G2Spec	0.855	0.618		
Actions	G1Actions	0.847	0.628	0.817	0.690
	G2Actions	0.814	0.575		
External Success	ExtS1	0.841	0.415	0.889	0.801
	ExtS2	0.945	0.688		

Table A9.15.ii. Average Variance Extracted by constructs and correlations between constructs to assess Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Actions	.831										
2. Creative Self-Efficacy	.182	.766									
3. Entrepreneurial Orientations	.304	.471	.601								
4. Entrepreneurial Self-Efficacy	.191	.597	.450	.692							
5. External Success	.430	-.097	-.004	.104	.895						
6. Goal-difficulty	.361	.507	.341	.244	-.022	.780					
7. Goal-specificity	.614	.278	.309	.096	.130	.234	.841				
8. Mastery Approach	-.028	.031	-.149	-.201	-.018	.204	.138	.812			
9. Personal Initiative	.179	.431	.443	.535	-.010	.212	.185	.022	.675		
10. Performance Approach	.365	.113	.060	.121	.049	.217	.308	-.020	-.098	.713	
11. Work Engagement	-.065	.396	.401	.630	-.013	.152	-.093	-.132	.555	-.164	.898

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A9.15.iii. Cross-loadings for measurement model

	Actions	CSE	EO	ESE	External Success	Goal- difficulty	Goal- specificity	Mastery Approach	PI	Performance Approach	Work Engagement
G1Action	0.847	0.265	0.352	0.336	0.298	0.314	0.603	0.040	0.233	0.292	0.090
G2Action	0.814	0.027	0.144	-0.035	0.423	0.285	0.410	-0.093	0.058	0.315	-0.212
CSE1	0.059	0.795	0.452	0.429	-0.080	0.433	0.305	0.122	0.243	0.037	0.326
CSE2	0.084	0.739	0.186	0.463	-0.040	0.284	0.183	0.071	0.414	0.100	0.384
CSE3	0.280	0.761	0.417	0.486	-0.098	0.433	0.136	-0.130	0.353	0.131	0.206
AOtot	0.259	0.283	0.734	0.419	0.097	0.176	0.173	-0.289	0.399	0.107	0.397
AutOTot	0.258	0.140	0.407	0.233	0.112	-0.094	0.123	-0.233	0.032	0.133	-0.061
CAgg	0.006	0.265	0.650	0.239	-0.033	0.029	0.055	-0.197	0.236	-0.047	0.228
IOTot	0.136	0.444	0.698	0.174	-0.174	0.529	0.308	0.136	0.300	0.006	0.155
LOTot	0.427	0.331	0.635	0.180	0.037	0.371	0.403	0.116	0.323	0.175	0.234
RTTotRS	0.001	0.209	0.383	0.313	-0.074	0.194	0.061	0.016	0.213	-0.181	0.405
ESE1	0.206	0.729	0.556	0.645	-0.073	0.277	0.202	-0.054	0.445	0.098	0.523
ESE2	0.004	0.297	0.116	0.674	0.102	0.069	-0.189	-0.174	0.177	0.216	0.386
ESE3	0.327	0.259	0.328	0.608	0.208	0.277	0.119	-0.102	0.394	0.076	0.225
ESE4	0.137	0.365	0.258	0.790	-0.006	0.122	0.009	-0.137	0.301	0.232	0.464
ESE5	-0.107	0.359	0.191	0.745	0.067	0.144	-0.050	-0.252	0.484	-0.234	0.599
ESE6	0.284	0.229	0.261	0.674	0.290	0.007	0.263	-0.125	0.256	0.314	0.233
ExtS1	0.276	-0.096	-0.066	0.087	0.841	-0.107	0.096	0.020	0.025	-0.072	0.018
ExtS2	0.458	-0.083	0.035	0.098	0.945	0.033	0.131	-0.038	-0.029	0.115	-0.029
G1DiffI	0.247	0.575	0.375	0.372	-0.004	0.823	0.189	0.228	0.333	0.135	0.216
G1DiffS	0.068	0.326	0.166	0.166	-0.042	0.572	-0.050	0.073	0.305	-0.093	0.038
G2DiffI	0.317	0.367	0.273	0.169	-0.109	0.856	0.284	0.198	0.101	0.236	0.166
G2DiffS	0.421	0.289	0.209	0.030	0.071	0.837	0.207	0.098	-0.019	0.289	0.007
G1Spec	0.501	0.213	0.220	0.083	0.130	0.128	0.827	0.077	0.102	0.265	-0.169
G2Spec	0.533	0.253	0.298	0.079	0.090	0.261	0.855	0.152	0.205	0.254	0.006

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Table A9.15.iii. (cont.)

	Actions	CSE	EO	ESE	External Success	Goal-difficulty	Goal-specificity	Mastery Approach	PI	Performance Approach	Work Engagement
G1MAGO	0.054	-0.035	-0.155	-0.213	0.047	0.213	0.159	0.968	-0.004	-0.015	-0.157
G2MAGO	-0.271	0.222	-0.061	-0.066	-0.213	0.078	0.004	0.618	0.091	-0.024	0.009
PI1	-0.175	0.277	0.263	0.279	-0.243	0.067	-0.116	0.057	0.648	-0.083	0.362
PI2	-0.005	0.270	0.329	0.255	-0.007	0.141	-0.129	0.034	0.709	-0.124	0.345
PI3	0.199	0.116	0.306	0.291	0.058	-0.070	0.291	-0.014	0.674	-0.029	0.293
PI4	0.047	0.182	0.361	0.303	-0.034	0.211	0.092	0.029	0.763	-0.302	0.379
PI5	0.31	0.393	0.376	0.525	-0.027	0.203	0.270	-0.029	0.740	0.063	0.427
PI6	0.313	0.325	0.206	0.348	0.142	0.211	0.154	-0.011	0.586	-0.021	0.533
PI7	0.041	0.333	0.231	0.388	0.051	0.136	0.219	0.052	0.583	-0.052	0.230
G1PAGO	0.330	0.110	0.045	0.081	0.019	0.230	0.289	0.000	-0.117	0.991	-0.174
G2PAGO	0.309	0.040	0.122	0.317	0.231	-0.071	0.177	-0.150	0.128	0.189	0.057
Absorption	-0.060	0.383	0.350	0.472	-0.166	0.143	-0.053	-0.105	0.465	-0.019	0.847
Dedication	-0.097	0.334	0.349	0.570	-0.013	0.082	-0.059	-0.077	0.490	-0.265	0.918
Vigor	-0.021	0.362	0.384	0.637	0.101	0.186	-0.131	-0.172	0.538	-0.124	0.927

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Table A9.15.iv provides an overview of both versions of the model. In the model which included only the direct effects, entrepreneurial orientations and personal initiative combined explained 34.3% of the variance in entrepreneurial self-efficacy, and 28.3% of the variance in creative self-efficacy (both large effects), but explained only a small amount of the variance in the mastery approach goal orientations (3.2%) and the performance approach goal orientations (2.3%).

Looking at the effects of the four variables in the proximal motivational phase, combined entrepreneurial and creative self-efficacy, and mastery and performance approach goals explained 32.0% of the variance in goal-difficulty (a large effect), 17.8% of the variance in goal-specificity (a medium effect), and 45.7% of the variance in work engagement (a large effect). The volitional variables (goal-difficulty, goal-setting and work engagement) combined had a large effect on actions towards the goal, explaining 43.0% of the variance. Finally, actions towards the goal explained 18.5% of the variance in external success (a medium effect). Despite the fact that the effect of actions on external success was in the medium range, the cross validated redundancy Q^2 was below zero, indicating that there may be an issue with predictive relevance. However, the cross validated commonality Q^2 was above zero. All other Q^2 values were above zero, indicating that predictive relevance was evident.

The results of the fully specified model resulted in largely similar findings, with the effect sizes of the same magnitude for most of the motivational and volitional variables, although the effect size increased from medium to large for goal-specificity (with 27.5% of its variance explained). However, the inclusion of the direct paths from all variables to the success measures resulted in a much larger percentage of the variance in external success being explained. Overall, 28.2% of the variance in external success was explained (a large effect). The results for the Q^2 calculations were similar with the same issue evident with regard to the cross-validated redundancy figure for external success. This appears as a somewhat unusual result, given that a large effect size was observed for this variable.

Table A9.15.iv. Estimation of the structural model (motivational and volitional resources, goal orientations, goal-setting, actions, and external success).

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R ²	R ² effect size	Q^2 Cross validated commonalit y	Q^2 Cross validated redundanc y	R ²	R ² effect size	Q^2 Cross validated commonalit y	Q^2 Cross validated redundanc y
Entrepreneurial self-efficacy	.343	Large	.519	.088	.322	Large	.518	.089
Creative self-efficacy	.283	Large	.550	.137	.292	Large	.550	.116
Work Engagement	.457	Large	.879	.493	.519	Large	.881	.531
Mastery Approach	.032	Small	.810	.041	.011	Small	.611	.054
Performance Approach	.023	Small	.424	.063	.014	Small	.067	.043
Goal-difficulty	.320	Large	.650	.265	.324	Large	.618	.062
Goal-specificity	.178	Medium	.472	.226	.275	Large	.469	.275
Actions	.430	Large	.650	.328	.572	Large	.353	.465
External success	.185	Medium	.474	-.079	.282	Large	.481	-.713

Looking at the individual path coefficients for the model specifying the direct effects only (see Table A9.15.v and Figure A9.15.i), entrepreneurial orientations had a significant positive effect on entrepreneurial self-efficacy (a small-medium effect), and a non-significant positive effect on creative self-efficacy (a small effect). It also had a small, but non-significant negative effect on mastery approach goals. Personal initiative had significant positive effects on entrepreneurial self-efficacy (a medium effect) and creative self-efficacy (a small effect), but did not significantly predict either of the goal orientations.

Mastery approach goals had a small, non-significant positive effect on goal-specificity. Performance approach goals had a small-medium, significant negative effect on work engagement, and a non-significant effect on goal-specificity (small-medium effect) and goal-difficulty (small effect).

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Entrepreneurial self-efficacy had a significant large positive effect on work engagement, but did not predict goal-setting. Creative self-efficacy had a medium positive effect on goal-difficulty, which was significant, and a non-significant, small positive effect on goal-setting.

Goal-specificity had a large positive effect on actions, while goal-difficulty had a small positive effect, both of which were significant. Work engagement did not significantly predict actions. Finally, actions towards the goal had a significant positive effect on external success.

The results for the fully-specified model resulted in similar findings as that for the previous model for the paths between each sequential phase of the model (see Table 9.20.b and Figure 9.7.b). However, the small, but non-significant effect from entrepreneurial orientations to mastery approach became negligible and to performance approach went from small to very small. The significant result from personal initiative to creative self-efficacy became non-significant. For creative self-efficacy a small but non-significant path to goal specificity became evident. For entrepreneurial self-efficacy a small, non-significant negative path to goal specificity became evident. The small effect from performance approach to goal difficulty became very small, but the small non-significant path to goal specificity became positive and medium in size. The small non-significant path from mastery approach to goal difficulty became negligible. Finally, the significant path from goal-difficulty to actions became non-significant, but a small effect was still evident. However, given that the power of this model to detect significant effects was lower than the previous model, these changes are not unexpected.

A number of additional significant paths were observed in the fully specified model. Entrepreneurial orientations had small, but non-significant effects on goal-difficulty, goal-specificity and work engagement. Personal initiative had a small but non-significant direct effect on work engagement and actions. Both entrepreneurial self-efficacy and performance approach goals had small but non-significant direct effects on actions. Mastery approach had a small, non-significant negative effect on external success. Finally, goal-difficulty had a small, non-significant negative effect on external success, but this could be a suppression effect. Figure A9.15.ii outlines the significant paths, as well the small effects that were non-significant. Other non-significant paths that were either negligible or very small are not shown for ease of interpretation.

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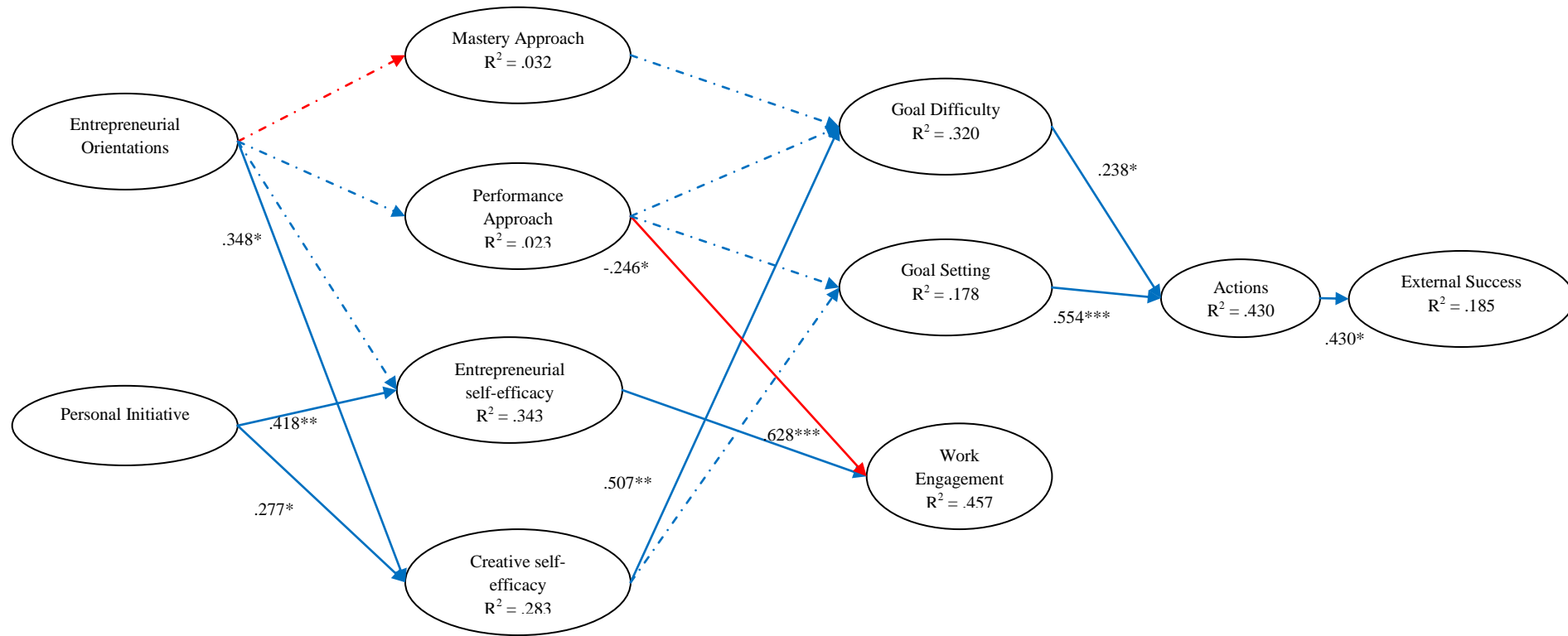


Figure A9.15.i. Results of Partial Least Squares analysis for the model investigating the relationships between motivational resources, volitional resources, goal orientations, goal-setting, actions, and external success. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; dashed lined indicate non-significant paths; red/blue dashed lines indicate small but non-significant effects).

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Table A9.15.v. Statistical results for Path Coefficients for direct effects only model (entrepreneurial orientations, personal initiative, domain specific self-efficacy, goal orientations, work engagement, goal-setting, actions and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	0.348*	2.29	0.152	0.152	.050; .646	.127	Small-medium
Entrepreneurial orientations → entrepreneurial self-efficacy	0.265	1.34	0.197	0.197	-.121; .651	.090	Small
Entrepreneurial orientations → mastery approach	-0.198	0.746	0.265	0.265	-.717; .321	.033	Small
Entrepreneurial orientations → performance approach	0.129	0.494	0.261	0.261	-.383; .641	.012	Very small
Personal Initiative → Creative self-efficacy	0.277*	1.75	0.159	0.159	-.035; .589	.071	Small
Personal initiative → entrepreneurial self-efficacy	0.418**	2.74	0.153	0.153	.118; .718	.205	Medium
Personal initiative → mastery approach	0.109	0.561	0.195	0.195	-.273; .491	.010	Very small
Personal initiative → performance approach	-0.155	0.668	0.232	0.232	-.610; .300	.018	Very small
Creative self-efficacy → goal-difficulty	0.507**	2.83	0.180	0.180	.154; .860	.237	Medium
Creative self-efficacy → goal-specificity	0.297	1.55	0.191	0.191	-.077; .671	.066	Small
Creative self-efficacy → work engagement	0.049	0.307	0.160	0.160	-.265; .363	.004	Negligible
Entrepreneurial self-efficacy → goal-difficulty	-0.042	0.222	0.191	0.191	-.416; .332	-.006	Negligible
Entrepreneurial self-efficacy → goal-specificity	-0.093	0.477	0.194	0.194	-.473; .287	.005	Negligible
Entrepreneurial self-efficacy → Work engagement	0.628***	4.67	0.134	0.134	.365; .891	.433	Large
Mastery approach → goal-difficulty	0.183	1.01	0.181	0.181	-.172; .538	.047	Small
Mastery approach → goal-specificity	0.115	0.638	0.181	0.181	-.240; .505	.017	Very small
Mastery approach → work engagement	-0.012	0.088	0.142	0.142	-.290; .266	.000	Negligible
Performance approach → goal-difficulty	0.168	0.948	0.177	0.177	-.179; .515	.031	Small
Performance approach → goal-specificity	0.288	1.49	0.194	0.194	-.092; .668	.100	Small-medium
Performance approach → work engagement	-0.246*	1.97	0.125	0.125	-.491; -.001	.110	Small-medium
Goal-difficulty → actions	0.238*	2.22	0.107	0.107	.028; .448	.086	Small
Goal-specificity → actions	0.554***	5.02	0.110	0.110	.338; .770	.488	Large
Work engagement → actions	-0.050	0.378	0.133	0.133	-.311; .211	.002	Negligible
Actions → external success	0.430***	4.18	0.103	0.103	.228; .632	N/A	N/A

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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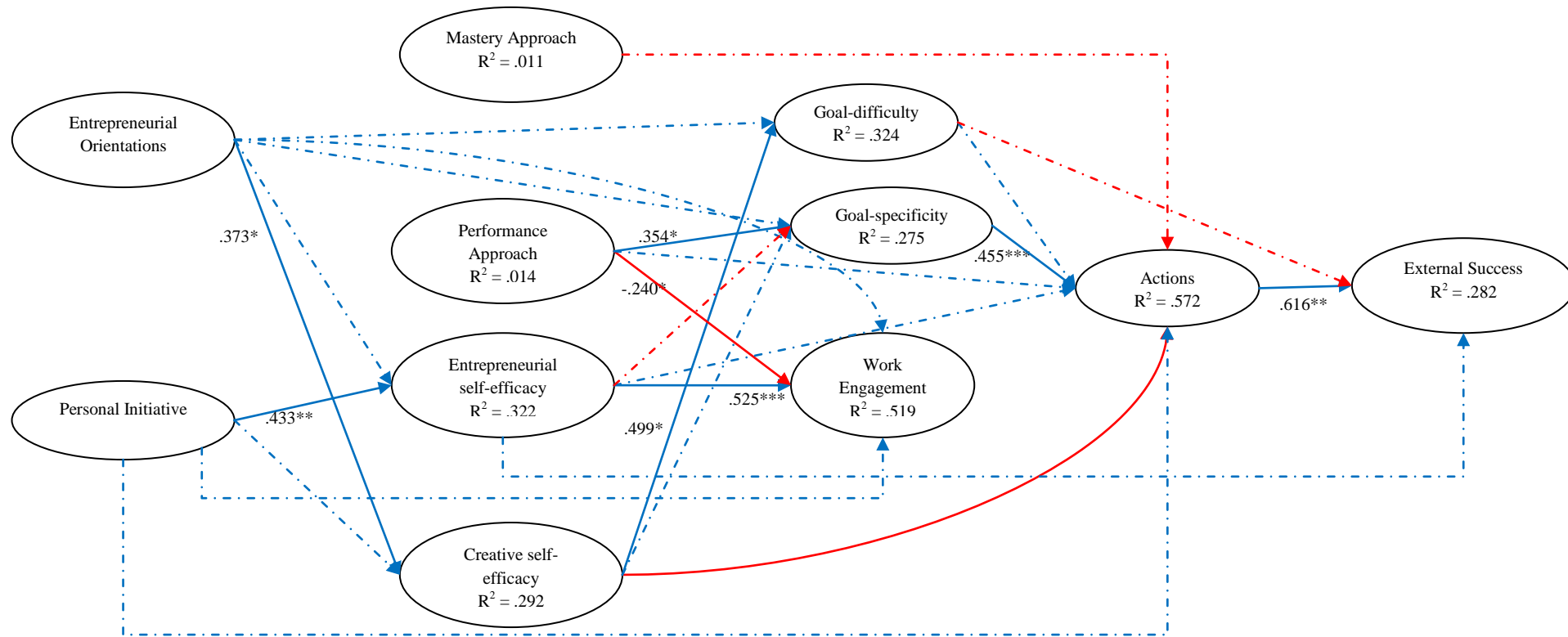


Figure A9.15.ii. Results of Partial Least Squares analysis for the fully specified model investigating the relationships between motivational resources, volitional resources, goal orientations, goal-setting, actions, and external success. (***) p < .001; (**) p < .01; (*) p < .05) (Dashed lines indicate non-significant small effects; all other non-significant effects are not shown).

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Table A9.15.vi. Statistical results for Path Coefficients in fully specified model (entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, goal orientations, work engagement, goal-setting, actions, external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → creative self-efficacy	0.373*	2.53	0.147	0.147	.085; .661	.144	Small-medium
Entrepreneurial orientations → entrepreneurial self-efficacy	0.219	1.05	0.209	0.209	-.191; .629	.060	Small
Entrepreneurial orientations → mastery approach	-0.071	0.306	0.231	0.231	-.524; .382	.003	Negligible
Entrepreneurial orientations → performance approach	0.132	0.564	0.234	0.234	-.327; .591	.014	Very small
Entrepreneurial orientations → goal difficulty	0.249	1.49	0.167	0.167	-.078; .576	.065	Small
Entrepreneurial orientations → goal specificity	0.268	1.38	0.194	0.194	-.112; .648	.069	Small
Entrepreneurial orientations → work engagement	0.123	0.865	0.142	0.142	-.423; .669	.020	Small
Entrepreneurial orientations → actions	0.053	0.327	0.162	0.162	-.265; .371	.012	Very small
Entrepreneurial orientations → external success	-0.130	0.577	0.226	0.226	-.573; .313	.013	Very small
Personal Initiative → Creative self-efficacy	0.257	1.62	0.158	0.158	-.053; .567	.061	Small
Personal initiative → entrepreneurial self-efficacy	0.433**	2.71	0.160	0.160	.119; .747	.210	Medium
Personal initiative → mastery approach	0.118	0.673	0.176	0.176	-.227; .463	.011	Very small
Personal initiative → performance approach	-0.079	0.336	0.236	0.236	-.542; .384	.005	Negligible
Personal initiative → work engagement	0.252	1.54	0.164	0.164	-.378; .882	.081	Small
Personal initiative → goal difficulty	-0.016	0.082	0.196	0.196	-.400; .368	-.028	Small
Personal initiative → goal specificity	0.154	0.738	0.209	0.209	-.256; .564	.011	Very small
Personal initiative → actions	0.140	0.758	0.185	0.185	-.223; .643	.021	Small
Personal initiative → external success	-0.100	0.377	0.266	0.266	-.621; .421	.013	Very small
Creative self-efficacy → work engagement	-0.059	0.360	0.163	0.163	-.378; .260	.000	Negligible
Creative self-efficacy → goal difficulty	0.499*	2.44	0.204	0.204	.099; .899	.192	Medium
Creative self-efficacy → goal specificity	0.235	1.23	0.191	0.191	-.139; .609	.034	Small
Creative self-efficacy → actions	-0.122	0.733	0.166	0.166	-.447; .203	.007	Negligible
Creative self-efficacy → external success	-0.151	0.644	0.234	0.234	-.610; .308	.013	Very small
Entrepreneurial self-efficacy → Work engagement	0.525**	3.09	0.170	0.170	.192; .858	.281	Medium
Entrepreneurial self-efficacy → goal difficulty	-0.178	0.887	0.201	0.201	-.572; .216	-.001	Negligible
Entrepreneurial self-efficacy → goal specificity	-0.315	1.36	0.232	0.232	-.770; .140	.057	Small
Entrepreneurial self-efficacy → actions	0.131	0.634	0.207	0.207	-.275; .537	.016	Very small
Entrepreneurial self-efficacy → external success	0.206	0.593	0.347	0.347	-.474; .886	.021	Small

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Table A9.15.vi (cont.).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Mastery approach → work engagement	0.006	0.046	0.130	0.130	-.249; .261	.000	Negligible
Mastery approach → goal difficulty	-0.064	0.290	0.222	0.222	-.499; .371	.006	Negligible
Mastery approach → goal specificity	-0.037	0.200	0.187	0.187	-.404; .330	.001	Negligible
Mastery approach → actions	-0.236	1.33	0.178	0.178	-.113; .585	.110	Small-medium
Mastery approach → external success	-0.022	0.100	0.220	0.220	-.453; .409	.000	Negligible
Performance approach → work engagement	-0.240*	1.88	0.128	0.128	-.491; .011	.106	Small-medium
Performance approach → goal difficulty	0.104	0.568	0.183	0.183	-.255; .463	.012	Very small
Performance approach → goal specificity	0.354*	2.23	0.159	0.159	.042; .666	.153	Medium
Performance approach → actions	0.164	0.943	0.174	0.174	-.177; .505	.044	Small
Performance approach → external success	-0.108	0.544	0.198	0.198	-.496; .280	.013	Very small
Work engagement → actions	-0.164	1.01	0.163	0.163	-.483; .155	.014	Very small
Work engagement → external success	0.068	0.290	0.235	0.235	-.393; .529	.001	Negligible
Goal difficulty → actions	0.244	1.49	0.164	0.164	-.077; .565	.086	Small
Goal difficulty → external success	-0.122	0.625	0.195	0.195	-.504; .260	.021	Small
Goal specificity → actions	0.455***	3.36	0.135	0.135	.190; .720	.360	Large
Goal specificity → external success	-0.095	0.433	0.218	0.218	-.522; .332	-.003	Negligible
Actions → external success	0.616**	2.63	0.234	0.234	.157; 1.075	.259	Medium-large

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

The final stage of the assessment of the structural model necessitates the investigation of the significance of the indirect paths (see Tables A9.15.vii and viii). None of the indirect paths reached significance.

Finally, the total indirect effects were calculated across each sequential phase of the model (see Table A9.15.ix). Only those related to external success were examined as all other were previously investigated in the main analysis. None of the total indirect effect reached significance.

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Table A9.15.vii. Test of the indirect effects of Entrepreneurial Orientations and Personal Initiative on external success, via entrepreneurial self-efficacy, creative self-efficacy, goal orientations, work engagement, goal-setting and actions.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → Goal-difficulty → Actions → External success	-.006	-.002	.013	-.462	-.029; .022
EO → ESE → Goal-specificity → Actions → External success	-.019	-.012	.027	-.704	-.078; .029
EO → ESE → work engagement → Actions → External success	-.012	-.010	.018	-.667	-.056; .016
EO → CSE → Goal-difficulty → actions → External success	.028	.029	.032	.875	-.005; .114
EO → CSE → Goal-specificity → actions → External success	.025	.020	.030	.833	-.027; .093
EO → CSE → work engagement → actions → External success	.002	.002	.010	.200	-.016; .026
EO → MA → Goal-difficulty → actions → External success	.001	.000	.012	.083	-.026; .025
EO → MA → Goal-specificity → actions → External success	.001	.001	.017	.059	-.031; .037
EO → MA → work engagement → actions → External success	.000	.000	.005	.000	-.011; .009
EO → PA → Goal-difficulty → actions → External success	.002	.001	.012	.167	-.024; .026
EO → PA → Goal-specificity → actions → External success	.013	.015	.030	.433	-.036; .088
EO → PA → work engagement → actions → External success	.003	.004	.011	.273	-.008; .032
PI → ESE → Goal-difficulty → actions → External success	-.012	-.004	.023	-.522	-.055; .038
PI → ESE → Goal-specificity → actions → External success	-.038	-.021	.036	-1.06	-.101; .050
PI → ESE → work engagement → actions → External success	-.023	-.018	.028	-.821	-.086; .027
PI → CSE → Goal-difficulty → actions → External success	.019	.019	.024	.792	-.008; .086
PI → CSE → Goal-specificity → actions → External success	.017	.014	.022	.773	-.015; .071
PI → CSE → work engagement → actions → External success	.002	.002	.007	.286	-.011; .019
PI → MA → Goal-difficulty → actions → External success	-.001	.000	.008	-.125	-.017; .019
PI → MA → Goal-specificity → actions → External Success	.000	.000	.013	.000	-.027; .026
PI → MA → work engagement → actions → External success	.000	-.001	.004	.000	-.010; .005
PI → PA → Goal-difficulty → actions → External success	-.001	-.003	.011	-.091	-.032; .013
PI → PA → Goal-specificity → actions → External success	-.008	-.007	.028	-.286	-.070; .048
PI → PA → work engagement → actions → External success	-.002	-.001	.008	-.250	-.021; .012

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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Table A9.15.viii. Test of alternative indirect paths.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → ESE → External Success	.045	.019	.102	.441	-.202; .233
EO → CSE → External Success	-.056	-.047	.105	-.533	-.270; .152
EO → MA → External Success	.002	-.013	.059	.034	-.147; .096
EO → PA → External Success	-.014	-.021	.063	-.222	-.166; .100
EO → WEng → External Success	.008	.021	.050	.160	-.051; .152
EO → Goal-difficulty → External Success	-.030	-.037	.070	-.429	-.200; .086
EO → Goal-specificity → External Success	-.025	-.020	.079	-.316	-.196; .139
EO → Actions → external Success	.081	.023	.102	.794	-.184; .238
PI → ESE → External Success	.089	.029	.173	.514	-.401; .321
PI → CSE → External Success	-.039	-.030	.073	-.534	-.201; .107
PI → MA → External Success	-.003	-.005	.045	-.067	-.103; .086
PI → PA → External Success	.009	.018	.051	.176	-.069; .143
PI → WEng → External Success	.017	.016	.070	.243	-.135; .161
PI → Goal-difficulty → External Success	.002	.007	.048	.042	-.088; .117
PI → Goal-specificity → External Success	-.015	-.004	.053	-.283	-.110; .107
PI → Actions → External Success	.086	.070	.119	.723	-.169; .314
ESE → Actions → External Success	.081	.065	.133	.609	-.222; .347
CSE → Actions → External Success	-.075	-.095	.110	-.682	-.337; .098
MA → Actions → External Success	-.145	-.110	.124	-1.17	-.382; .101
PA → Actions → External Success	.101	.084	.111	.910	-.121; .321

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

Table A9.15.ix. Test of total indirect effects.

Total Indirect effect (Σab - c')	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → external success	.090	.069	.198	.455	-.322; .471
PI → external success	.126	.087	.209	.603	-.342; .482
MA → external success	-.155	-.065	.198	-.783	-.379; .503
PA → external success	.178	.152	.143	1.24	-.126; .447
ESE → external success	.000	.052	.181	.000	-.304; .431
CSE → external success	-.015	-.050	.149	-.101	-.364; .238

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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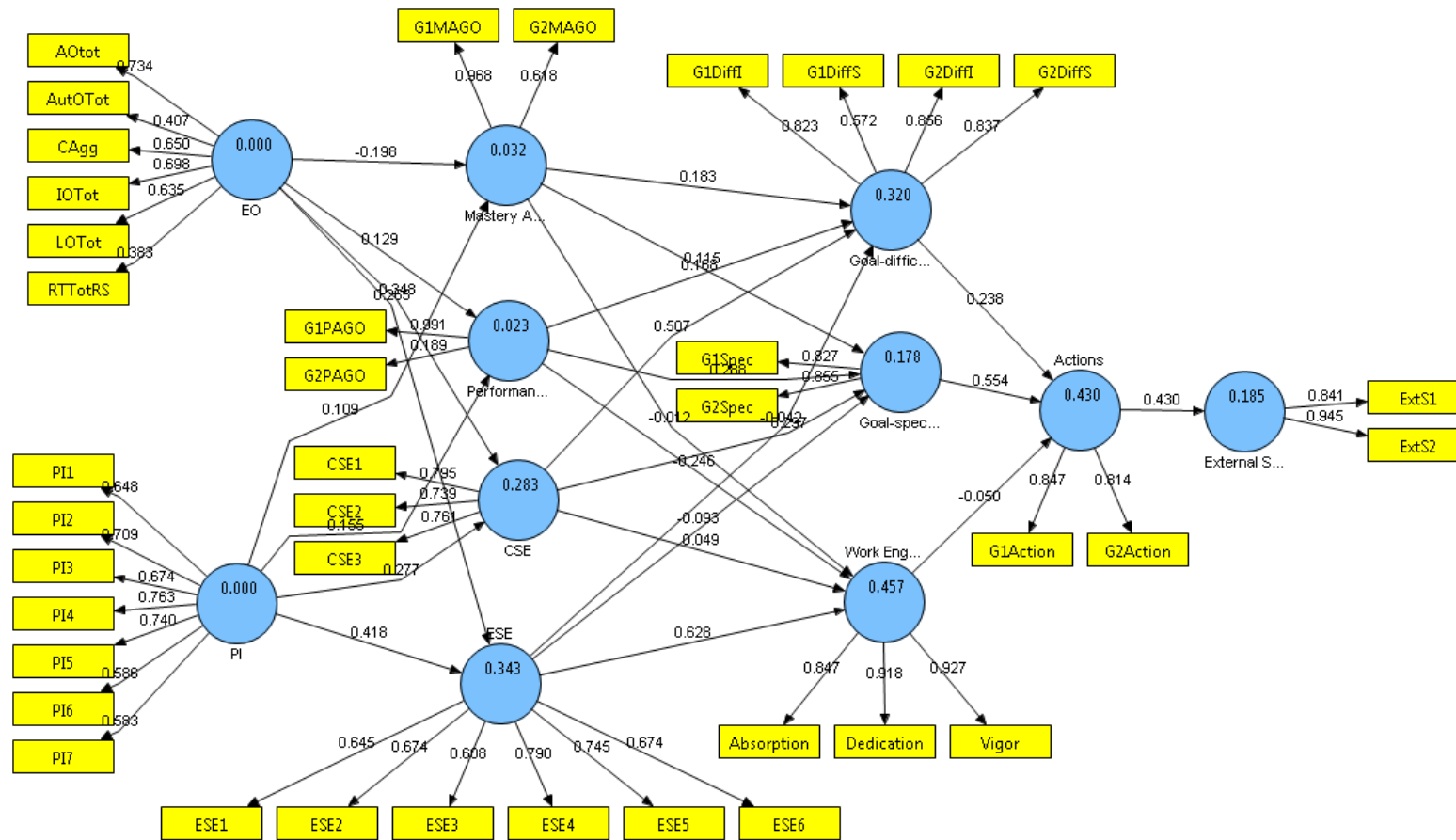


Figure A9.15.iii. Original PLS output for direct effects only model investigating entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, goal, orientations, work engagement, goal-setting, actions, and external success.

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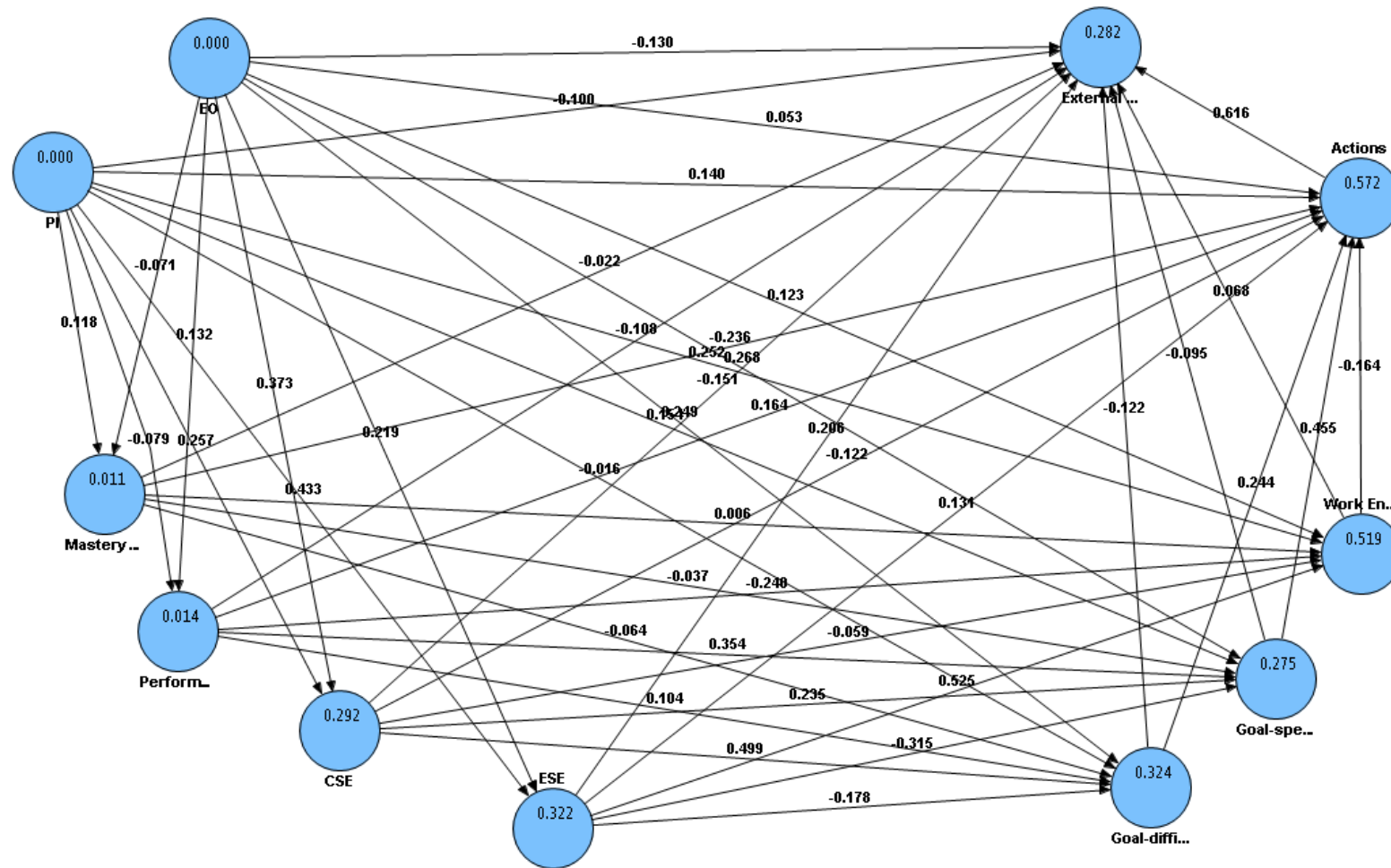


Figure A9.15.iv. Original PLS output for fully specified model investigating entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, creative self-efficacy, goal, orientations, work engagement, goal-setting, actions and external success

APPENDICES PERTAINING TO CHAPTER 10

Appendix 10.1: Model investigating the direct effects of the emotional variables on objective success and self-perceptions of success.

10.1.1. Preliminary analysis

Table A10.1.i Correlations between anticipated emotions.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Excitement	1															
2. Delight	.745**	1														
3. Happiness	.550**	.744**	1													
4. Gladness	.544**	.725**	.816**	1												
5. Satisfaction	.214	.218	.506**	.408**	1											
6. Pride	.486**	.426**	.547**	.482**	.540**	1										
7. Self-Assurance	.219	.120	.196	.201	.279*	.308*	1									
8. Anger	.193	.161	.289*	.228	.253*	.334**	.216	1								
9. Frustration	.124	.140	.103	-.018	.109	.269*	.046	.648**	1							
10. Guilt	.264*	.306*	.300*	.228	.184	.420**	.268*	.600**	.578**	1						
11. Shame	.293*	.272*	.217	.248*	.261*	.345**	.310*	.406**	.325**	.660**	1					
12. Sadness	.125	.065	.261*	.189	.291*	.306*	.074	.519**	.431**	.374**	.410**	1				
13. Disappointment	-.038	-.084	-.105	-.142	.059	.186	.250*	.467**	.661**	.426**	.398**	.470**	1			
14. Depression	.125	.138	.214	.264*	.157	.190	.315*	.486**	.319*	.514**	.583**	.516**	.475**	1		
15. Worry	-.097	-.127	-.084	-.085	.099	.076	.089	.472**	.533**	.540**	.412**	.347**	.615**	.517**	1	
16. Discomfort	.119	.154	.136	.117	.026	.222	.184	.496**	.580**	.646**	.453**	.420**	.540**	.540**	.711**	1
17. Fear	-.004	-.044	.044	.095	.052	.021	.068	.457**	.263*	.507**	.402**	.359**	.396**	.575**	.644**	.540**

** p < .01; * p < .05

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Table A10.1.ii Comments made by participants in relation to self-assurance

Participant	Comment in relation to self-assurance
P031	“Self assurance, please explain?”
P040	“Self assurance, and what do you mean by self assurance?”
P041	“self assurance, confidence yeah?”
P056	“self assurance. What do we mean here by self assurance? Kind of self realisation?”
P068	“Self assurance? Self assurance, not really goal related. I don't really know how I could express that. It's just completely irrelevant.”
P084	“Self assurance?”

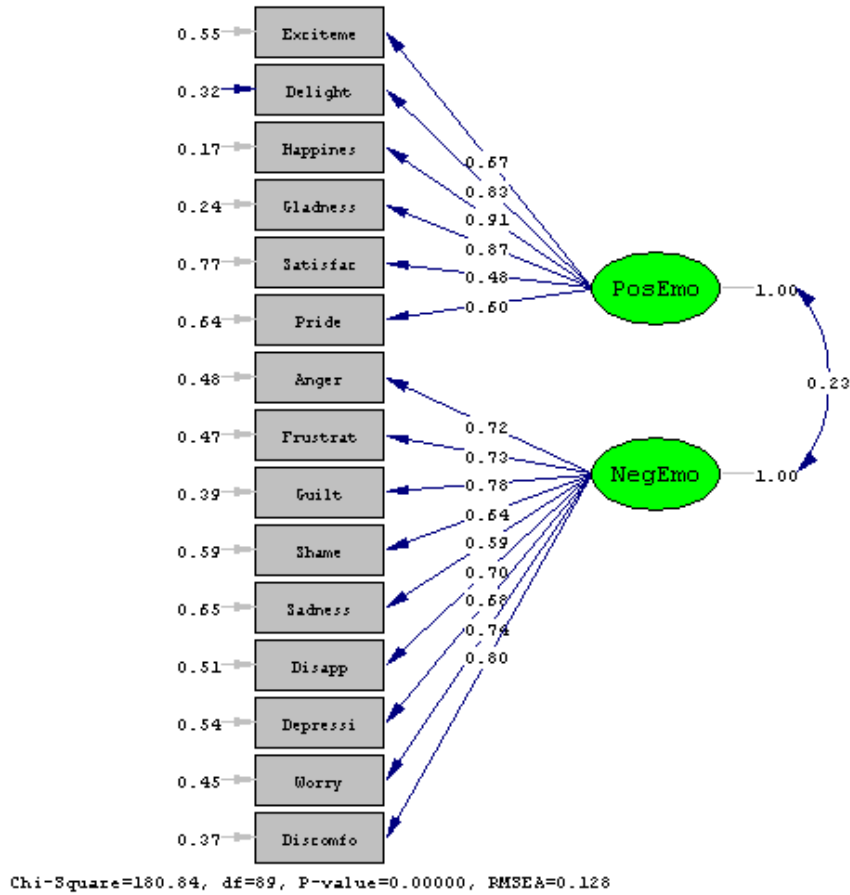


Figure A10.1.i CFA for goal-directed emotions, excluding self-assurance.

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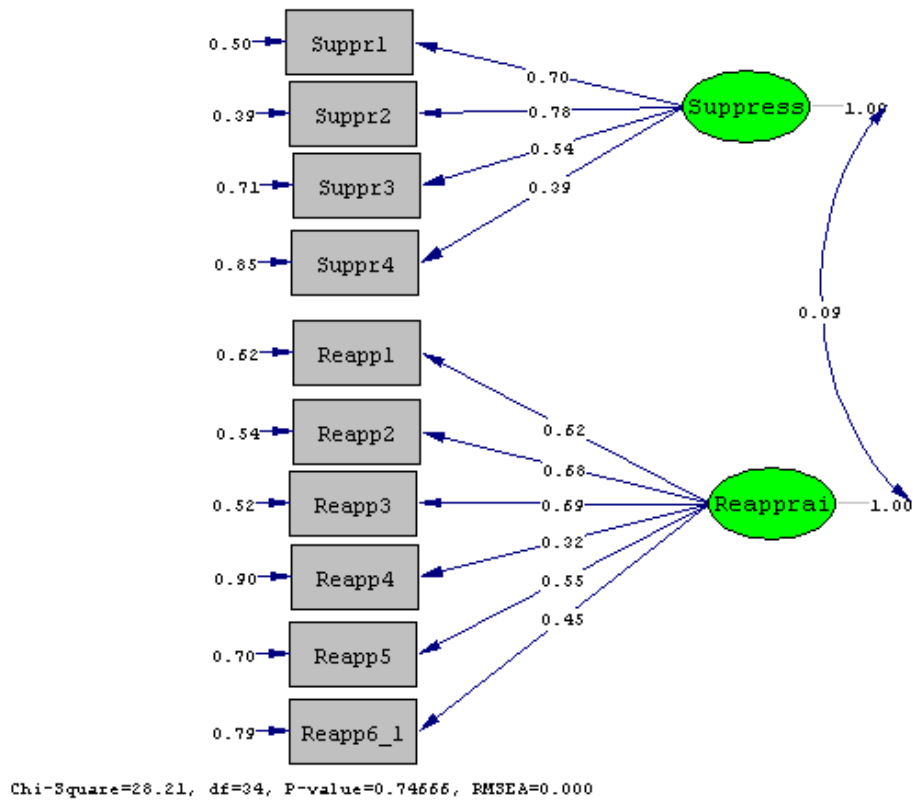
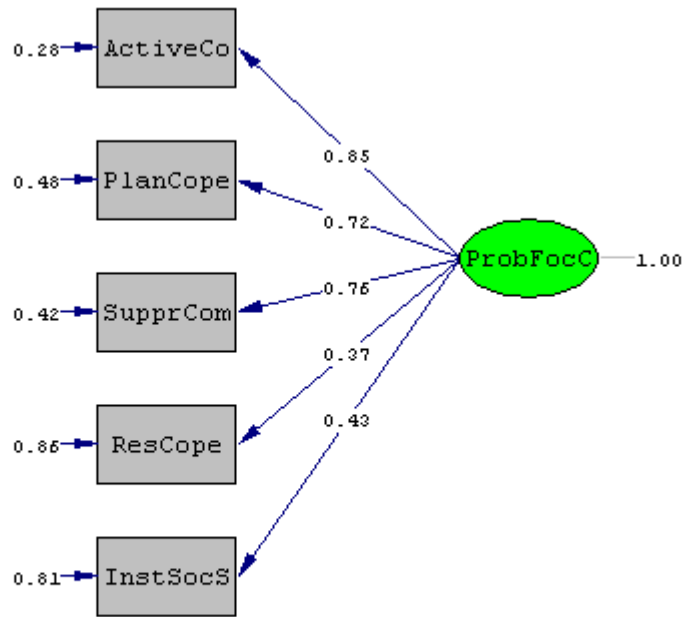


Figure A10.1.ii CFA of Emotion regulation strategies (reappraisal and suppression).

Table A10.1.iii Comparison of model 4 and model 5 for Problem-focused coping CFA.

Index	Model 5	Model 4	Cut-off criteria
χ^2	5.48	4.26	Should be non-sig. (>0.05)
df	5	2	Informal rule of thumb: at most χ^2 should be no more than 3x df
p	.350	.119	
GFI	0.97	0.97	>0.95
AGFI	0.90	0.84	>0.92
CFI	0.99	0.96	>0.90, but >0.95 better
NFI	0.95	0.93	
RMSEA	0.039	.134	<.05 good model fit <.08 model is good approximation
CI ₉₀ RMSEA	0.00; 0.18	.00; .31	<.05; <.08
ECVI	0.40	.32	For model comparison;
AIC	25.48	20.26	the lower the number the
CAIC	57.07	45.54	better the model



Chi-Square=5.48, df=5, P-value=0.36020, RMSEA=0.039

Figure A10.1.iii CFA for Problem-focused coping strategies.

10.1.2. The impact of the emotional variables on objective success and self-perceptions of success.

Table A10.1.iv Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (emotion variables, objective success and self-perceptions of success).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Reappraisal	Reapp1	0.689	0.195	0.809	0.417
	Reapp2	0.630	0.170		
	Reapp3	0.741	0.367		
	Reapp4	0.590	0.340		
	Reapp5	0.669	0.262		
	Reapp6	0.535	0.207		
Suppression	Suppr1	0.211	-0.114	0.591	0.327
	Suppr2	0.204	-0.18		
	Suppr3	0.703	0.594		
	Suppr4	0.853	0.755		
Positive anticipated emotions	Delight	0.862	0.252	0.904	0.617
	Excitement	0.784	0.238		
	Gladness	0.865	0.239		
	Happiness	0.892	0.207		
	Pride	0.702	0.162		
	Satisfaction	0.558	0.162		

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Table A10.1.iv (cont.)

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Negative anticipated emotions	Anger	0.756	0.164	0.922	0.543
	Depression	0.744	0.165		
	Disappointment	0.782	0.211		
	Discomfort	0.796	0.111		
	Fear	0.693	0.124		
	Frustration	0.742	0.139		
	Guilt	0.759	0.099		
	Sadness	0.626	0.078		
	Shame	0.635	0.075		
	Worry	0.809	0.172		
Problem-Focused Coping	ActiveCope	0.887	0.38	0.826	0.510
	InstSocSupp	0.509	0.174		
	PlanCope	0.818	0.336		
	ResCope	0.355	-0.009		
	SupprCompAct	0.842	0.36		
Objective Success	ObjSucc	1.00	1.00	1.00	1.00
Self-Perceptions of Success	SelfSucc1	0.805	0.421	0.818	0.605
	SelfSucc2	0.606	0.145		
	SelfSucc3	0.895	0.64		

Table A10.1.v Average Variance Extracted and correlations between constructs (emotion variables, objective success and self-perceptions of success).

	1.	2.	3.	4.	5.	6.	7.
1. Anticipated Negative Emotions	0.737						
2. Anticipated Positive Emotions	0.187	0.786					
3. Objective Success	0.062	-0.007	1.000				
4. Problem-Focused Coping	0.002	0.413	0.115	0.714			
5. Reappraisal	-0.154	0.315	0.014	0.481	0.646		
6. Self-Perceptions of Success	0.180	0.055	0.243	0.285	-0.067	0.778	
7. Suppression	0.388	-0.061	0.083	0.025	-0.034	-0.054	0.572

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.1.vi Cross-loadings for measurement model (emotion variables, objective success and self-perceptions of success).

	Anticipated Negative Emotions	Anticipated Positive Emotions	Objective Success	Problem-Focused Coping	Reappraisal	Self-Perceptions of Success	Suppression
Anger	0.756	0.296	0.015	0.157	-0.170	0.245	0.306
Depression	0.744	0.229	-0.058	0.049	-0.011	0.045	0.369
Disapp	0.782	-0.046	0.072	-0.088	-0.267	0.138	0.379
Discomfort	0.796	0.164	-0.098	-0.026	-0.076	0.010	0.224
Fear	0.693	0.032	0.090	-0.016	0.085	0.225	0.310
Frustration	0.742	0.143	0.118	-0.089	-0.314	0.225	0.200
Guilt	0.759	0.355	0.079	-0.015	-0.013	0.143	0.220
Sadness	0.626	0.243	0.025	0.167	0.008	0.221	0.177
Shame	0.636	0.341	0.096	0.160	0.137	0.092	0.219
Worry	0.809	-0.064	0.117	-0.113	-0.208	0.028	0.314
Delight	0.097	0.862	0.057	0.394	0.275	0.083	-0.051
Excitement	0.116	0.784	0.003	0.426	0.174	0.109	-0.139
Gladness	0.115	0.865	0.003	0.339	0.307	-0.003	-0.044
Happiness	0.148	0.892	-0.077	0.281	0.280	0.010	-0.055
Pride	0.294	0.702	-0.059	0.239	0.206	0.111	0.037
Satisfaction	0.182	0.558	0.015	0.210	0.240	-0.071	0.008
ObjSucc5	0.062	-0.007	1.000	0.115	0.014	0.243	0.083
ActiveCope	0.075	0.403	0.135	0.887	0.431	0.228	0.029
InstSocSupp	-0.095	0.175	0.181	0.509	0.385	0.035	0.055
PlanCope	-0.134	0.320	-0.061	0.818	0.436	0.275	-0.089
ResCope	-0.116	-0.048	0.068	0.355	0.307	-0.009	0.141
Suppr CompAct	0.095	0.339	0.149	0.842	0.296	0.278	0.098
Reapp1	-0.080	0.138	0.088	0.255	0.689	0.148	-0.113
Reapp2	-0.092	0.109	-0.058	0.257	0.630	-0.051	0.060
Reapp3	-0.087	0.291	-0.043	0.481	0.741	-0.100	0.038
Reapp4	-0.026	0.296	-0.045	0.348	0.590	-0.117	-0.008
Reapp5	-0.060	0.209	0.064	0.145	0.669	-0.096	-0.019
Reapp6	-0.318	0.033	0.100	0.263	0.535	0.069	-0.138
SelfS1	0.154	0.122	0.301	0.197	-0.008	0.805	-0.035
SelfS2	-0.001	-0.030	0.271	0.068	-0.050	0.606	-0.066
SelfS3	0.179	0.013	0.120	0.300	-0.088	0.895	-0.047
Suppr1	-0.056	-0.057	0.003	0.053	0.018	-0.122	0.211
Suppr2	-0.095	-0.134	0.122	0.047	0.081	-0.223	0.204
Suppr3	0.247	0.019	-0.041	0.105	-0.008	-0.238	0.703
Suppr4	0.289	-0.136	0.171	-0.031	-0.017	0.044	0.853

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Table A10.1.vii Estimation of the inner model (emotional variables, objective and self-perceptions of success).

	Direct effects only model				Direct and indirect effects model			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Problem-focused coping	.177	Medium	.570	.097	.337	Large	.573	.254
Positive anticipated emotions	.102	Medium	.642	.072	.099	Medium	.640	.054
Negative anticipated emotions	.170	Medium	.531	.134	.079	Small-Medium	.502	.076
Objective Success	.013	Small	1.00	-.046	.032	Small	1.00	-.105
Self-Perceptions of Success	.081	Small-medium	.655	.077	.207	Medium-Large	.667	.242

Table A10.1.viii. Statistical results for Path Coefficients (emotional variables, objective and self-perceptions of success, direct effects).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Anticipated positive emotions	0.313	1.43	0.218	0.218	-.114; .740	.108	Small-medium
Reappraisal → Anticipated negative emotions	-0.141	0.505	0.278	0.278	-.686; .404	.034	Small
Suppression → Anticipated positive emotions	-0.050	0.264	0.189	0.189	-.420; .320	.011	Very small
Suppression → Anticipated negative emotions	0.383	1.12	0.342	0.342	-.287; 1.05	.014	Very small
Anticipated positive emotions → Problem-focused coping	0.428**	2.95	0.145	0.145	.144; .712	.215	Medium
Anticipated negative emotions → Problem-focused coping	-0.078	0.444	0.176	0.176	-.423; .267	.009	negligible
Problem-focused coping → self-perceptions of success	0.285*	1.95	0.146	0.146	-.001; .571		Cannot be calculated as only one predictor
Problem-focused coping → objective success	0.115	0.820	0.140	0.140	-.159; .389		

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table A10.1.ix Statistical results for Path Coefficients (emotional variables, objective and self-perceptions of success, direct and indirect effects).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Anticipated positive emotions	0.302*	1.70	0.178	0.178	-.047; .651	.101	Medium
Reappraisal → Anticipated negative emotions	-0.175	0.794	0.221	0.221	-.608; .258	.029	Small
Reappraisal → Problem-Focused Coping	0.443***	3.04	0.146	0.146	.157; .729	.222	Medium-large
Reappraisal → self-perceptions of success	-0.191	1.07	0.179	0.179	-.542; .160	.014	Very small
Reappraisal → objective success	-0.049	0.260	0.188	0.188	-.417; .368	.003	Negligible
Suppression → Anticipated positive emotions	-0.093	0.542	0.171	0.171	-.428; .242	.010	Very small

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Table A10.1.ix (cont).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Suppression → Anticipated negative emotions	0.222	0.688	0.323	0.323	-.411; .855	.024	Small
Suppression → Problem-Focused Coping	0.116	0.826	0.141	0.141	-.160; .392	.017	Very small
Suppression → self-perceptions of success	-0.291	1.59	0.183	0.183	-.650; .068	.079	Small
Suppression → objective success	0.046	0.248	0.185	0.185	-.317; .409	.001	Negligible
Anticipated positive emotions → Problem-focused coping	0.252*	1.78	0.142	0.142	-.026; .530	.066	Small
Anticipated positive emotions → self-perceptions of success	-0.120	0.955	0.126	0.126	-.367; .127	.025	Small
Anticipated positive emotions → objective success	-0.066	0.399	0.166	0.166	-.329; .259	.006	Negligible
Anticipated negative emotions → Problem-focused coping	-0.024	0.169	0.142	0.142	-.302; .254	.002	Negligible
Anticipated negative emotions → self-perceptions of success	0.252	1.43	0.177	0.177	-.095; .347	.014	Very small
Anticipated negative emotions → objective success	0.077	0.507	0.152	0.152	-.221; .298	.008	Negligible
Problem-focused coping → self-perceptions of success	0.419**	2.77	0.151	0.151	.123; .296	.155	Medium
Problem-focused coping → objective success	0.174	1.13	0.155	0.155	-.130; .478	.008	Negligible

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table A10.1.x Estimations of the significance of the specific indirect effects with one mediator.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t = (ab orig.)/ (SD ab Bootstrapped)	BC CI ₉₅
Reappraisal → Antic. Pos. Emotions → PFC ¹⁶	.076	.079	.068	1.12	-.05; .22
Reappraisal → Antic. Neg. Emotions → PFC	.004	.004	.041	.098	-.08; .09
Reappraisal → PFC → Self-perceptions of success	.186*	.177	.095	1.96	.00; .37
Reappraisal → PFC → Objective Success	.077	.077	.078	.987	-.07; .24
Suppression → Antic. Pos. Emotions → PFC	-.023	-.022	.049	-.469	-.13; .07
Suppression → Antic. Neg. Emotions → PFC	-.005	-.009	.047	-.106	-.11; .08
Suppression → PFC → Self-perceptions of success	.047	.040	.066	.712	-.08; .18
Suppression → PFC → Objective Success	.020	.013	.033	.606	-.05; .09
Antic. Pos. Emotions → PFC → Self-perceptions of success	.106	.097	.070	1.51	-.03; .25
Antic. Pos. Emotions → PFC → Objective success	.044	.039	.049	.898	-.05; .15
Antic. Neg. Emotions → PFC → Self-perceptions of success	-.010	-.005	.061	-.164	-.13; .12
Antic. Neg. Emotions → PFC → Objective success	-.004	-.005	.033	-.121	-.08; .06

* p < .05, ** p < .01, *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

¹⁶ PFC = Problem-Focused Coping

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Table A10.1.xi Estimations of the significance of the specific indirect effects with two sequential mediators.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t = (ab orig.)/ (SD ab Bootstrapped)	BC CI ₉₅
Reappraisal → Antic. Pos. Emotions → PFC → Self- perceptions of success	.032	.033	.032	1.00	-.02; .11
Reappraisal → Antic. Pos. Emotions → PFC → Objective success	.013	.014	.021	.619	-.02; .06
Reappraisal → Antic. Neg. Emotions → PFC → Self- perceptions of success	.002	.001	.017	.118	-.03; .04
Reappraisal → Antic. Neg. Emotions → PFC → Objective success	.001	.001	.009	.111	-.02; .02
Suppression → Antic. Pos. Emotions → PFC → Self- perceptions of success	-.010	-.009	.021	-.476	-.06; .03
Suppression → Antic. Pos. Emotions → PFC → Objective success	-.004	-.003	.012	-.333	-.03; .02
Suppression → Antic. Neg. Emotions → PFC → Self- perceptions of success	-.002	-.003	.020	-.100	-.05; .04
Suppression → Antic. Neg. Emotions → PFC → Objective success	-.001	-.001	.011	-.091	-.03; .02

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)

Table A10.1.xii Estimations of the significance of the total indirect effects.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t = (ab orig.)/ (SD ab Bootstrapped)	BC CI ₉₅
Reappraisal → PFC	.080	.083	.096	.833	-.09; .25
Suppression → PFC	-.028	-.029	.081	-.346	-.17; .10
Reappraisal → Self-perceptions of success	.139	.166	.126	1.10	-.06; .39
Reappraisal → Objective success	.058	.063	.117	.496	-.16; .29
Suppression → Self-perceptions of success	.104	.083	.136	.765	-.14; .33
Suppression → Objective success	.038	.025	.088	.432	-.12; .19

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 Reappraisal → PFC = [Total Reappraisal → PFC] - [Direct effect Reappraisal → PFC]
 Suppression → PFC = [Total Suppression → PFC] - [Direct effect Suppression → PFC]
 Reappraisal → Self-perceptions of success = [Total Reappraisal → Self-perceptions of success] - [Direct effect Reappraisal
 → Self-perceptions of success]
 Reappraisal → Objective success = [Total Reappraisal → Objective success] - [Direct Reappraisal → Objective Success]
 Suppression → Self-perceptions of success = [Total Suppression → Self-perceptions of success] - [Direct Suppression →
 Objective Success]
 Suppression → Objective success = [Total Suppression → Objective success] - [Direct Suppression → Objective Success]

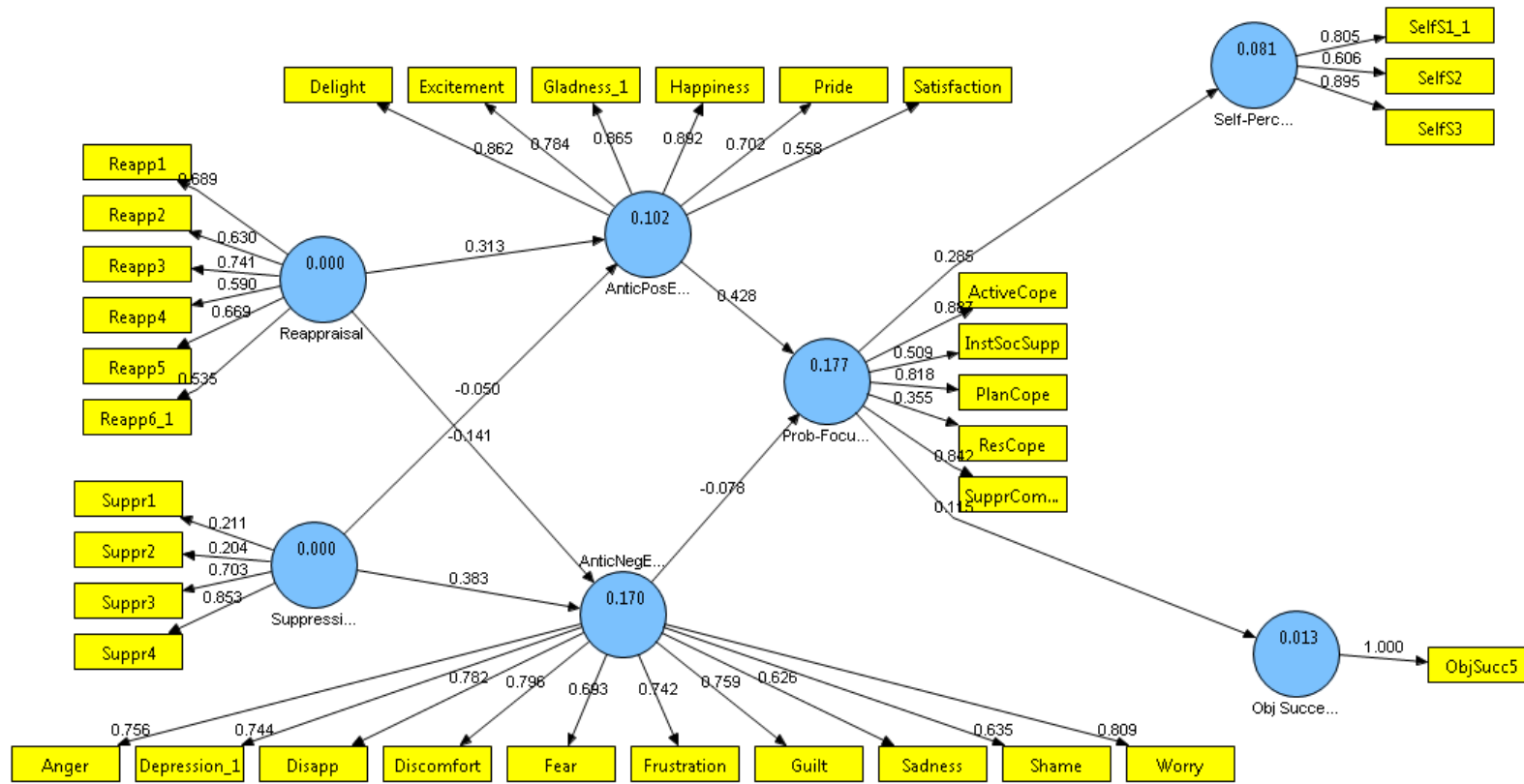


Figure A10.1.i PLS output for direct effect of emotions variables on self-perceptions of success and objective success.

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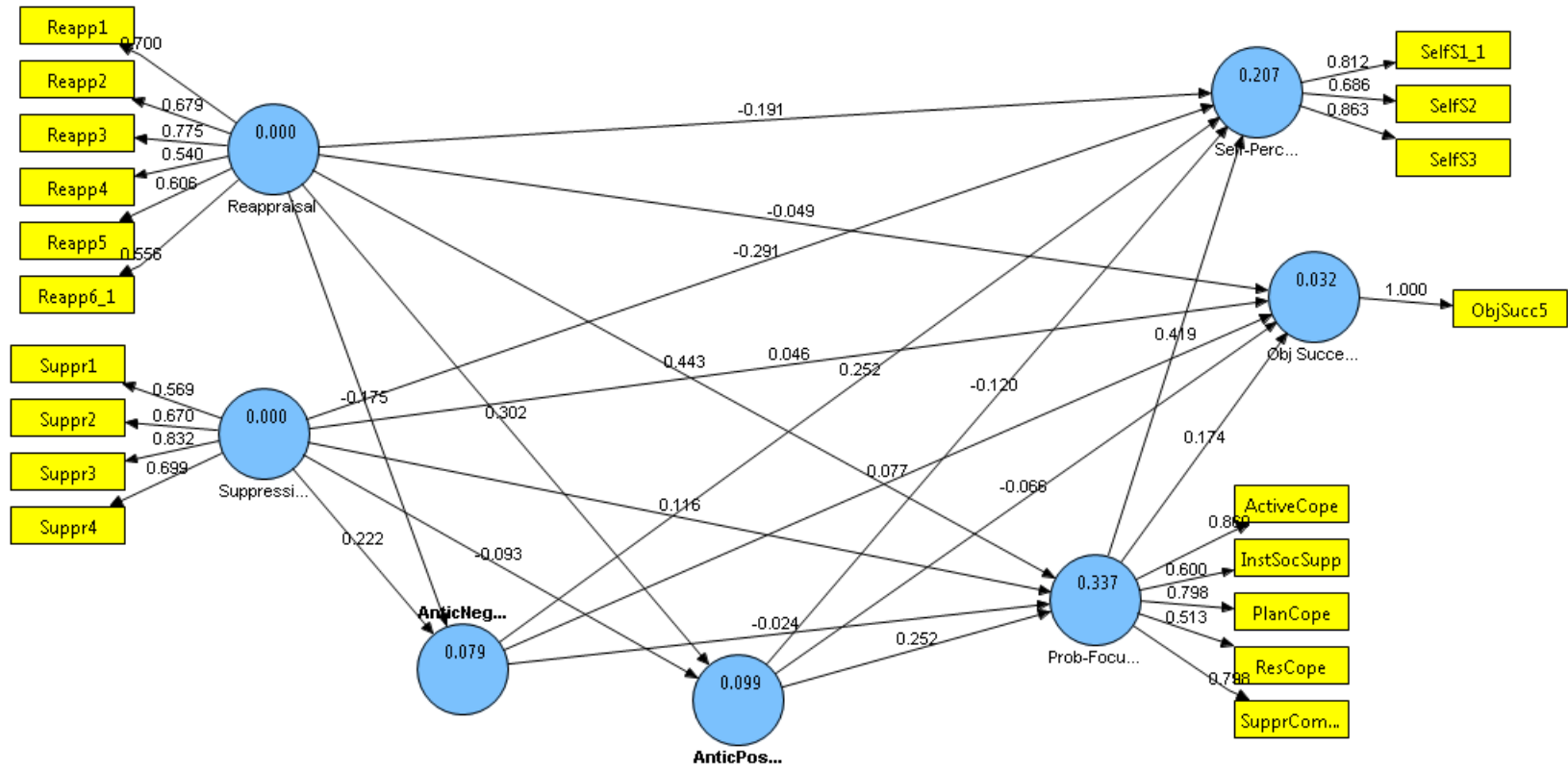


Figure A10.1.ii PLS output for the direct and indirect effects of emotions variables on self-perceptions of success and objective success.

Appendix 10.2: PLS model investigating the relationships between the emotion variables and external success.

The analysis presented in this appendix is analogous to that outlined in section 10.3 pertaining to the influence of the emotional variables on success. However, in the analysis presented below the success variable investigated is the external measure of success. The sample size for this analysis is reduced from 64 to 39, as there was missing data in the external success measure. As with the analysis in 10.3, two versions of the analysis were calculated, the first where only the direct effects from each sequential phase were included, and the second where all direct and indirect effects were included. The sample size for these models are unlikely to be powerful enough to detect significant effects, and so effect size estimations were relied upon in the interpretation of the structural model. However, this analysis serves as an important adage to the other success measures as it was not self-reported.

Table A10.2.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (emotion variables, external success).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Reappraisal	Reapp1	0.738	0.188	0.853	0.499
	Reapp2	0.707	0.173		
	Reapp3	0.874	0.387		
	Reapp4	0.486	0.197		
	Reapp5	0.703	0.205		
	Reapp6	0.673	0.238		
Suppression	Suppr1	0.157	-0.237	0.567	0.298
	Suppr2	0.291	-0.16		
	Suppr3	0.770	0.802		
	Suppr4	0.699	0.666		
Positive anticipated emotions	Delight	0.930	0.255	0.929	0.691
	Excitement	0.880	0.207		
	Gladness	0.861	0.223		
	Happiness	0.905	0.202		
	Pride	0.810	0.154		
	Satisfaction	0.538	0.149		
Negative anticipated emotions	Anger	0.726	0.147	0.900	0.478
	Depression	0.729	0.100		
	Disappointment	0.719	0.202		
	Discomfort	0.779	0.183		
	Fear	0.758	0.127		
	Frustration	0.681	0.179		
	Guilt	0.588	0.083		
	Sadness	0.639	0.105		
	Shame	0.432	0.034		
	Worry	0.787	0.233		
Problem-Focused Coping	ActiveCope	0.898	0.347	0.843	0.540
	InstSocSupp	0.577	0.172		
	PlanCope	0.836	0.312		
	ResCope	0.330	-0.004		
	SupprCompAct	0.870	0.379		
External Success	ExtS1	0.972	1.126	0.647	0.531
	ExtS2	0.340	-0.280		

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The assessment of the measurement model presented below pertains to the direct effects only model, as the model which included both direct and indirect effects showed little differences in the measurement. Table A10.2.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). The AVE for reappraisal, problem-focused coping, anticipated positive emotions and external success were at or above the recommended level of .5, and their respective composite reliabilities were high. However, a number of items had factor loadings that were somewhat suboptimal. For suppression and anticipated negative emotions, the AVE was a little low, but the composite reliability was high for anticipated negative emotions and approached .6 for suppression. Furthermore, a number of the factor loadings for both of these variables were on the low side. This is reasonably similar to the measurement model for the larger sample.

The Fornell-Larcker criterion is met as all of the correlations between latent variable pairs are lower than the square root of each variables AVE (see Table 10.7). However, of note is that rather high correlation between reappraisal and problem-focused coping, which was quite a bit higher than in the original analysis in section 10.3. Looking at the cross-loadings, all of the indicators load most highly on the own latent variable, except for Restraint Cope which loads similarly on Reappraisal as it does on its own latent variable of problem-focused coping (see Table 11.8). Hence, discriminant validity is relatively good.

Table A10.2.ii. Average Variance Extracted and correlations between constructs (emotion variables, external success).

	1.	2.	3.	4.	5.	6.
1. Anticipated Negative Emotions	0.691					
2. Anticipated Positive Emotions	0.136	0.831				
3. External Success	0.005	-0.072	0.729			
4. Problem-Focused Coping	0.051	0.541	0.145	0.735		
5. Reappraisal	-0.228	0.32	0.014	0.614	0.706	
6. Suppression	0.474	-0.021	-0.217	-0.07	-0.012	0.546

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A10.2.iii. Cross-loadings for measurement model (emotion variables, external success).

	Anticipated Negative Emotions	Anticipated Positive Emotions	External Success	Problem-Focused Coping	Reappraisal	Suppression
Anger	0.726	0.304	-0.012	0.241	-0.178	0.270
Depression	0.729	0.040	0.075	0.058	-0.016	0.245
Disappointment	0.719	-0.030	-0.100	-0.140	-0.298	0.395
Discomfort	0.779	0.162	-0.169	0.033	-0.058	0.442
Fear	0.758	0.077	0.205	0.171	0.022	0.320
Frustration	0.681	0.149	0.005	-0.057	-0.300	0.327
Guilt	0.588	0.361	-0.156	0.108	0.004	0.205
Sadness	0.639	0.095	-0.095	0.185	-0.118	0.196
Shame	0.432	0.300	-0.020	0.110	0.136	0.141
Worry	0.787	-0.099	0.204	-0.053	-0.304	0.464
Delight	0.061	0.930	-0.078	0.543	0.374	0.022
Excitement	0.139	0.880	-0.134	0.488	0.222	-0.021
Gladness	0.133	0.861	-0.059	0.458	0.348	-0.039
Happiness	0.150	0.905	-0.005	0.459	0.241	-0.033
Pride	0.192	0.810	-0.218	0.351	0.184	-0.036
Satisfaction	0.015	0.538	0.160	0.350	0.162	-0.008
ExtS1	0.036	-0.065	0.972	0.121	-0.003	-0.189

Table A10.2.iii. (cont.)

	Anticipated Negative Emotions	Anticipated Positive Emotions	External Success	Problem- Focused Coping	Reappraisal	Suppression
ExtS2	0.124	-0.006	0.340	-0.030	-0.061	0.015
ActiveCope	0.092	0.504	0.048	0.898	0.570	-0.080
InstSocSupp	-0.001	0.257	-0.011	0.577	0.460	0.189
PlanCope	-0.012	0.421	0.147	0.836	0.521	-0.142
ResCope	-0.143	-0.049	0.138	0.330	0.381	0.087
SupprCompAct	0.058	0.501	0.225	0.870	0.463	-0.080
Reapp1	-0.137	0.159	-0.051	0.485	0.738	-0.086
Reapp2	-0.057	0.196	0.125	0.327	0.707	0.084
Reapp3	-0.313	0.307	-0.035	0.489	0.874	-0.016
Reapp4	-0.006	0.264	-0.027	0.505	0.486	0.008
Reapp5	-0.089	0.218	0.191	0.291	0.703	-0.028
Reapp6	-0.215	0.173	-0.077	0.494	0.673	0.003
Suppr1	-0.103	-0.153	0.047	0.030	0.204	0.157
Suppr2	-0.068	-0.073	0.109	0.098	0.304	0.291
Suppr3	0.327	0.008	-0.197	0.018	0.043	0.770
Suppr4	0.266	-0.113	-0.047	-0.093	0.076	0.699

Moving to examine the structural, Table A10.2.iv demonstrates the percentage of variance explained in each endogenous variable for both versions of the model, the first where only the direct effects from each sequential phase of the model are included, and the second where all direct and indirect paths are specified. In the direct effects only model, anticipated positive and negative emotions explained 29.3% of the variance in problem-focused coping, which is indicative of a large effect. Individual differences in emotion reappraisal and suppression explained 9.3% of the variance in positive anticipated emotions and 27.4% of the variance in negative anticipated emotions, which represent a medium and large effect respectively. However, problem-focused coping on its own explained only a small portion of the variance in objective, explained 2.1%. This is a similar finding to the main analysis, which found that problem-focused coping had a small effect on objective success. All of the variables showed predictive relevance, except for external success, where the cross validated redundancy was below zero, but the cross-validated commonality was above zero, suggesting that overall, the predictive relevance for this variable was questionable in this model.

In the fully specified model, the percentage of variance explained in problem-focused coping increased to 55.0% (a large effect) when reappraisal and suppression were added as direct predictors. The percentage of variance explained in positive anticipated emotions and negative anticipated emotions remained relatively stable. A much higher amount of the variance in objective success was explained, which increased to a medium effect (9.1%). For all of the endogenous variables in this model, including external success, the Q^2 estimations indicate that the model did have predictive relevance.

Table A10.2.iv. Estimation of the inner model (emotional variables, external success).

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Problem-focused coping	0.293	Large	.439	.227	.550	Large	.451	.371
Positive anticipated emotions	0.103	Medium	.715	.025	.100	Medium	.706	.021
Negative anticipated emotions	0.274	Large	.567	.099	.290	Large	.548	.100
External Success	0.021	Small	.470	-.023	.101	Medium	.688	.168

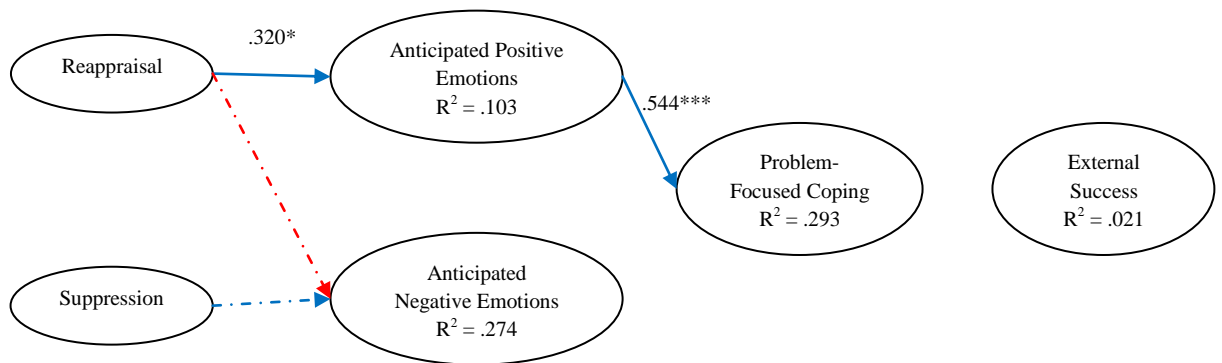


Figure 10.5.i. Results of Partial Least Squares analysis for the model investigating the direct effects of emotional variables on success. (***) $p < .001$; ** $p < .01$; * $p < .05$; non-significant paths are not shown).

Moving to examine the effect of each individual variable for the first model (see Table A10.2.v and Figure A10.2.i), the results indicate that only two of the variables had significant effects. Reappraisal had a significant positive effect on anticipated positive emotions, and this in turn had a significant effect on problem-focused coping. However, looking at the effect size estimations indicates that a number of small effects were also evident which did not reach significance due to the sample size. Reappraisal had a small negative effect on negative anticipated emotions, and suppression had a small positive effect on the same variable.

Table A10.2.v. Statistical results for Path Coefficients (emotional variables, external success, direct effects).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Anticipated positive emotions	0.320*	1.72	0.187	0.187	-.047; .687	.114	Small-medium
Reappraisal → Anticipated negative emotions	-0.222	0.815	0.273	0.273	-.757; .313	.102	Small-medium
Suppression → Anticipated positive emotions	-0.017	0.070	0.245	0.245	-.497; .463	.006	Negligible
Suppression → Anticipated negative emotions	0.472	0.993	0.475	0.475	-.459; 1.40	.037	Small
Anticipated positive emotions → Problem-focused coping	0.544***	3.70	0.147	0.147	.256; .832	.400	Large
Anticipated negative emotions → Problem-focused coping	-0.023	0.107	0.220	0.220	-.454; .408	.000	Negligible
Problem-focused coping → external success	0.145	0.524	0.277	0.277	-.398; .688		Only one predictor

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

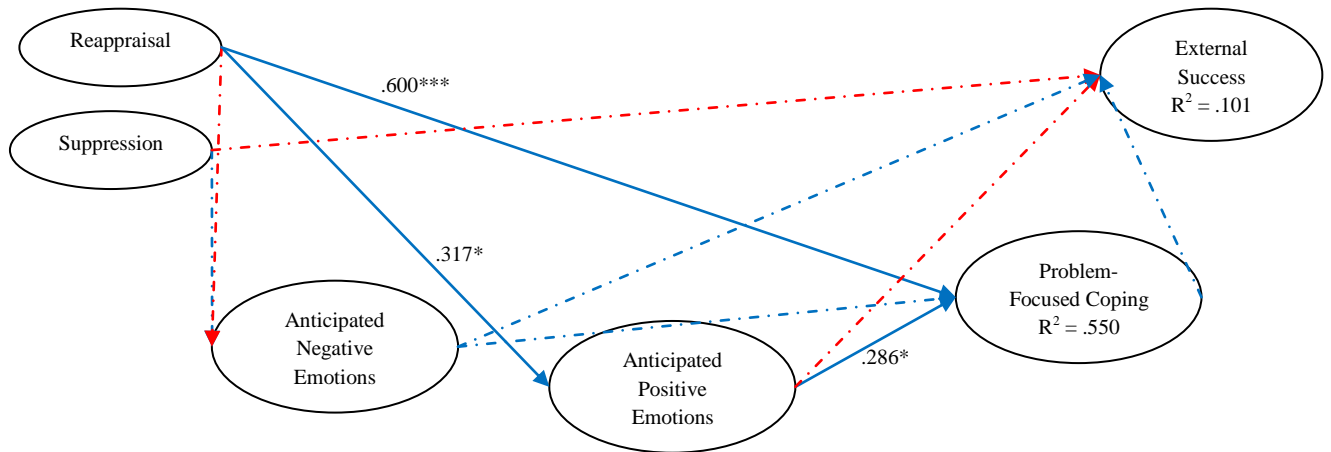


Figure A10.2.ii. Results of Partial Least Squares analysis for the model investigating the direct and indirect effects of emotional variables on external success. (***p* < .001; ***p* < .01; * *p* < .05; dashed lined indicate non-significant paths)

Table A10.2.vi. Statistical results for Path Coefficients (emotional variables, external success, direct and indirect effects).

	β	<i>t</i>	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Anticipated positive emotions	0.317*	1.79	0.177	0.177	-.030; .664	.111	Small-medium
Reappraisal → Anticipated negative emotions	-0.181	0.714	0.254	0.254	-.679; .317	.075	Small
Reappraisal → Problem-Focused Coping	0.600***	4.388	0.137	0.137	.331; .869	.538	Large
Reappraisal → external success	-0.104	0.327	0.318	0.318	-.727; .519	.016	Very small
Suppression → Anticipated positive emotions	0.016	0.066	0.246	0.246	-.466; .498	.001	Negligible
Suppression → Anticipated negative emotions	0.495	1.10	0.450	0.450	-.387; 1.377	.125	Small-Medium
Suppression → Problem-Focused Coping	-0.111	0.673	0.166	0.166	-.436; .214	-.007	Negligible
Suppression → external success	-0.278	1.06	0.261	0.261	-.790; .234	.060	Small
Anticipated positive emotions → Problem-focused coping	0.286*	2.16	0.132	0.132	.027; .545	.142	Medium
Anticipated positive emotions → external success	-0.170	0.826	0.206	0.206	-.421; .387	.022	Small
Anticipated negative emotions → Problem-focused coping	0.172	1.02	0.169	0.169	-.159; .503	.044	Small
Anticipated negative emotions → external success	0.200	0.722	0.278	0.278	-.345; .745	.048	Small
Problem-focused coping → external success	0.232	0.657	0.354	0.354	-.462; .926	.033	Small

* *p* < .05, ** *p* < .001; *** *p* < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

In the second version of the model, where all direct and indirect paths were included (see Table A10.2.vi, and Figure A10.2.ii), the two significant paths remained so; reappraisal had a significant effect on positive anticipated emotions and this had a significant effect on problem-focused coping. Reappraisal also had a significant effect on problem-focused coping, and a small non-significant negative effect on negative anticipated emotions. Suppression had a small-medium positive effect on anticipated negative

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emotions, and a small negative effect on external success, although neither path reached statistical significance. Anticipated negative emotions also had a small positive effect on problem-focused coping. Finally, anticipated positive emotions had a small, but non-significant negative effect on external success, while anticipated negative emotions and problem-focused coping had small positive effects on external success.

In the final stage of the analysis, the indirect effects were calculated using bootstrapping. In the calculation of the indirect effects, the fully specified model (which specified all the potential direct and indirect paths) was used, in order to control for the direct effects (the c' path). Only the indirect effects pertaining to external success were calculated as all other indirect effects were previously calculated in the main analysis in 10.3. None of the separate indirect paths were significant (see Table A10.2.vii and Table A10.2.viii), nor the total indirect effects reached significance (see Table A10.2.ix).

Table A10.2.vii. Estimations of the significance of the specific indirect effects with one mediator.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t = (ab orig.)/ (SD ab Bootstrapped)	BC CI ₉₅
Reappraisal → PFC → External Success	.139	.140	.220	.632	-.29; .57
Suppression → PFC → External Success	-.026	-.013	.074	-.342	-.19; .13
Antic. Pos. Emotions → PFC → External success	.066	.060	.114	.526	-.16; .31
Antic. Neg. Emotions → PFC → External success	.040	.044	.087	.460	-.09; .27

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)

Table A10.2.viii. Estimations of the significance of the specific indirect effects with two sequential mediators.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t = (ab orig.)/ (SD ab Bootstrapped)	BC CI ₉₅
Reappraisal → Antic. Pos. Emotions → PFC → External success	.021	.023	.053	.396	-.07; .15
Reappraisal → Antic. Neg. Emotions → PFC → External success	-.007	-.009	.030	-.233	-.09; .04
Suppression → Antic. Pos. Emotions → PFC → External success	.001	-.008	.034	.029	-.09; .06
Suppression → Antic. Neg. Emotions → PFC → External success	.020	.008	.047	.426	-.08; .12

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)

Table A10.2.ix. Estimations of the significance of the total indirect effects.

	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t = (ab orig.)/ (SD ab Bootstrapped)	BC CI ₉₅
Reappraisal → External success	.063	.088	.274	.230	-.46; .64
Suppression → External success	.092	.022	.217	.424	-.36; .48

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 Reappraisal → External success = [Total Reappraisal → External success] – [Direct Reappraisal → External Success]
 Suppression → External success = [Total Suppression → External success] – [Direct Suppression → External Success]

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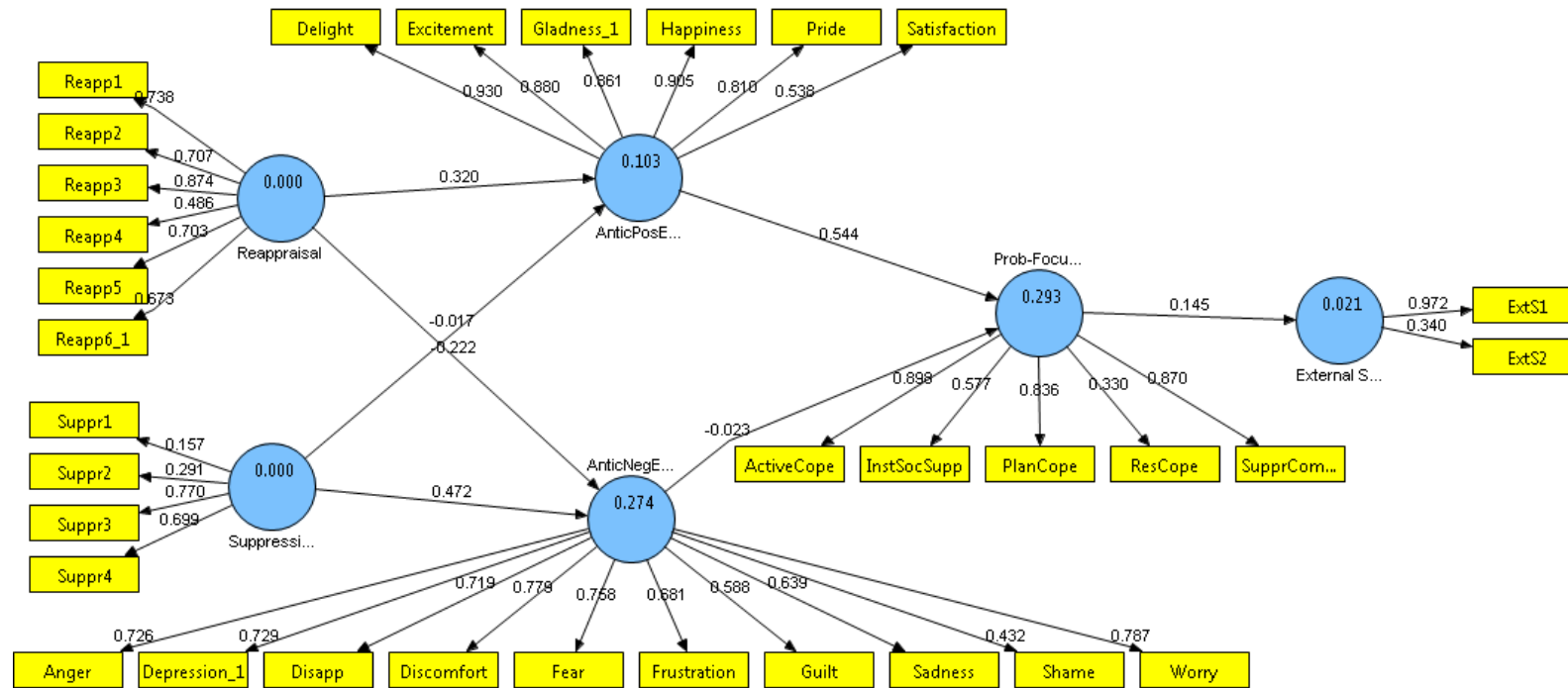


Figure A10.3.iii. Original PLS output for the direct effects model investigating emotions variables and external success

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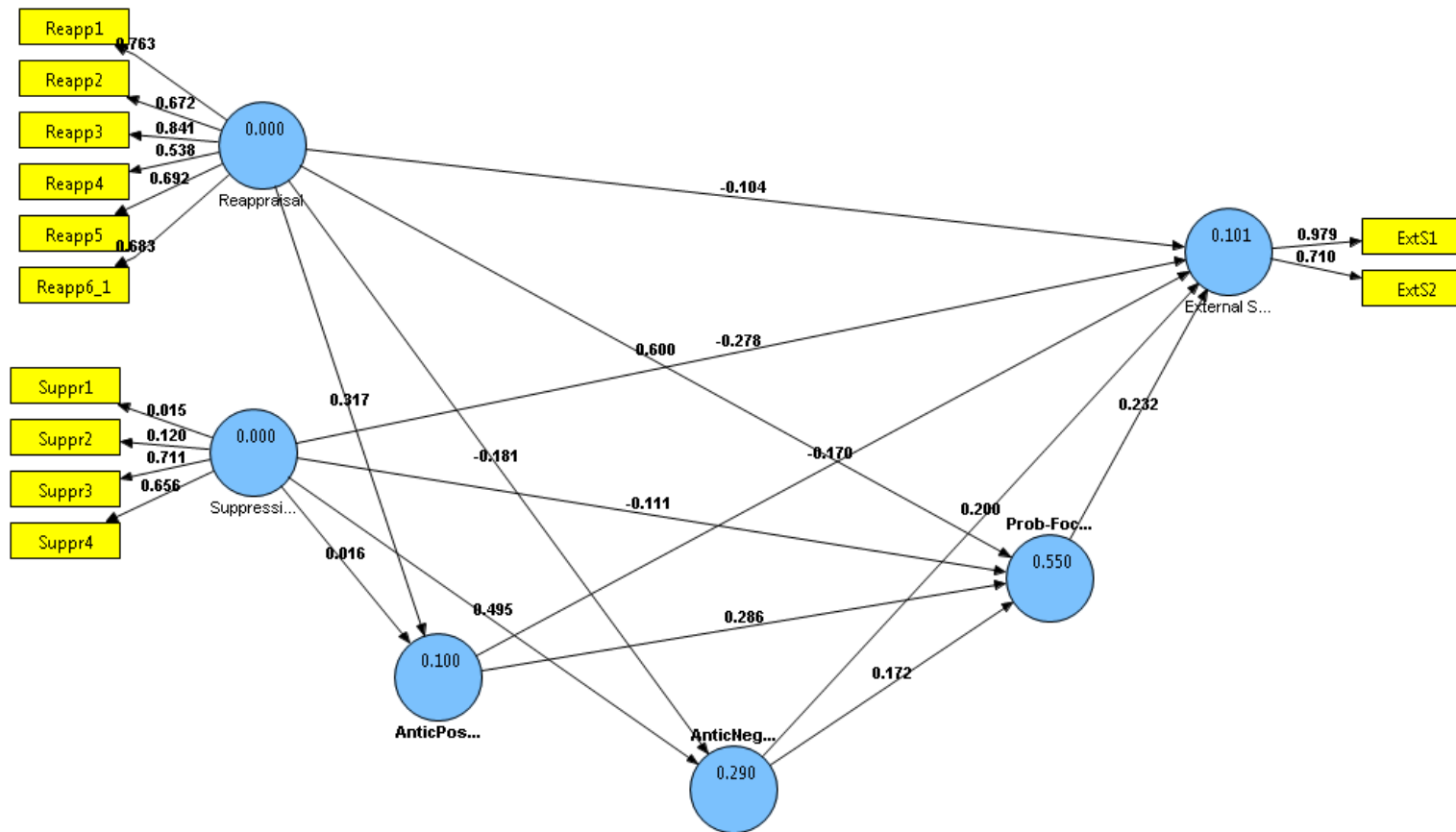


Figure A10.3.iv. Original PLS output for the fully specified model investigating emotions variables and external success

Appendix 10.3: Model investigating the direct effects of Reappraisal and Suppression on Objective Success and Self-perceptions of success

The analysis presented in this appendix considers the direct effect of reappraisal and suppression on objective success and self-perceptions of success, in the absence of any mediating variables. Table A10.3.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). The composite reliabilities for the three variables were all high. Self-perceptions of success demonstrated high AVE, composite reliabilities and factor loadings. Suppression demonstrated a good composite reliability, but its AVE was a little below the recommended level of 0.5, which may be due to a poor factor loading for one of its four indicators. Reappraisal demonstrated a very poor AVE and composite reliability, and some of its indicators loaded negatively. This appears unusual as these results are in contrast to other analyses which included this variable.

The poor measurement criteria for the reappraisal variable led to problems with the discriminant validity of the variables also. The correlation between the latent variables reappraisal and self-perceptions of success was higher than the square root of the AVE for reappraisal (see Table A10.3.ii). The negatively loading indicators for reappraisal also meant that the cross-loadings were less than optimal, and furthermore, the fourth suppression item also had a low factor loading which caused problems in the cross-loadings. Hence, discriminant validity could not be definitively established.

Overall, the measurement model was problematic. However, given that this analysis provides supplementary information to that in the main analysis, the structural model was calculated, although caution is needed in drawing inferences from the results.

Table A10.3.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (reappraisal, suppression, objective success, self-perceptions of success).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Reappraisal	Reapp1	-0.517	-0.814	0.001	0.116
	Reapp2	0.217	0.346		
	Reapp3	0.346	0.466		
	Reapp4	0.354	0.580		
	Reapp5	-0.106	-0.110		
	Reapp6	-0.355	-0.354		
Suppression	Suppr1	0.696	0.353	0.730	0.445
	Suppr2	0.737	0.315		
	Suppr3	0.850	0.656		
	Suppr4	0.167	-0.214		
Self-perceptions of success	SelfS1	0.767	0.271	0.829	0.621
	Self22	0.900	0.637		
	SelfS3	0.684	0.321		
Objective Success	ObjSucc5	1.00	1.00	1.00	1.00

Table A10.3.ii. Average Variance Extracted and correlations between constructs (reappraisal, suppression, objective success, self-perceptions of success).

	1.	2.	3.	4.
1. Objective Success	1.000			
2. Reappraisal	-0.180	0.341		
3. Self-perceptions of success	0.293	-0.425	0.788	
4. Suppression	-0.024	0.159	-0.319	0.667

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.3.iii. Cross-loadings for measurement model (reappraisal, suppression, objective success, self-perceptions of success).

	Objective Success	Reappraisal	Self-perceptions of success	Suppression
ObjSucc5	1.00	-0.180	0.293	-0.024
Reapp1	0.088	-0.517	0.240	-0.106
Reapp2	-0.058	0.217	-0.093	0.057
Reapp3	-0.043	0.346	-0.140	0.064
Reapp4	-0.045	0.354	-0.178	0.037
Reapp5	0.064	-0.106	0.010	0.031
Reapp6	0.100	-0.355	0.078	-0.015
SelfS1	0.301	-0.169	0.766	-0.192
SelfS2	0.271	-0.500	0.900	-0.298
SelfS3	0.120	-0.191	0.684	-0.242
Suppr1	0.003	0.100	-0.162	0.696
Suppr2	0.122	0.077	-0.153	0.737
Suppr3	-0.040	0.191	-0.298	0.850
Suppr4	0.171	0.118	0.085	0.167

Moving to examine the structural model, Table A10.3.iv demonstrates that reappraisal and suppression explained 24.6% of the variance in self-perceptions of success (a large effect), but only had a small effect on objective success, explain 3.2% of the variance. Table A10.3.v indicates that reappraisal has a medium-large significant and negative effect on self-perceptions of success and a small negative non-significant effect on objective success. Suppression had a small negative non-significant effect on self-perceptions of success and no effect on objective success. However, the confidence intervals are wide and contain zero suggesting caution in the interpretation of these results is warranted.

Table A10.3.iv. Estimation of the inner model (reappraisal, suppression, objective success, self-perceptions of success).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Self-perceptions of success	0.246	Large	.731	.047
Objective success	0.032	Small	1.00	-.239

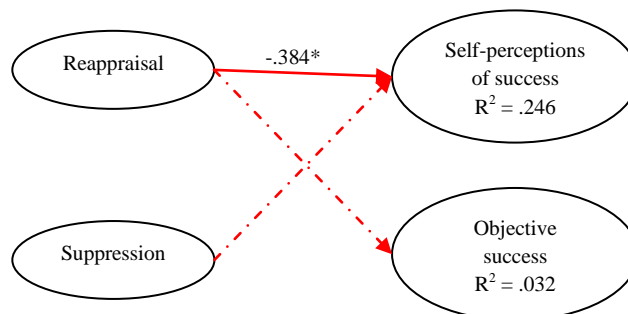


Figure A10.3.i. Results of Partial Least Squares analysis for the model investigating the direct effects of reappraisal and suppression on objective success and self-perceptions of success. (*** p < .001; **p < .01; * p < .05; dashed lined indicate non-significant paths).

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Table A10.3.v. Statistical results for Path Coefficients (reappraisal, suppression, objective success, self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Self-perceptions of success	-0.384*	1.673	0.230	0.230	-.835; .067	.204	Medium-Large
Reappraisal → Objective success	-0.181	1.062	0.170	0.170	-.514; .152	.033	Small
Suppression → Self-perceptions of success	-0.258	1.165	0.222	0.222	-.693; .177	.065	Small
Suppression → Objective success	0.005	0.023	0.214	0.214	-.414; .424	-.001	Negligible

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

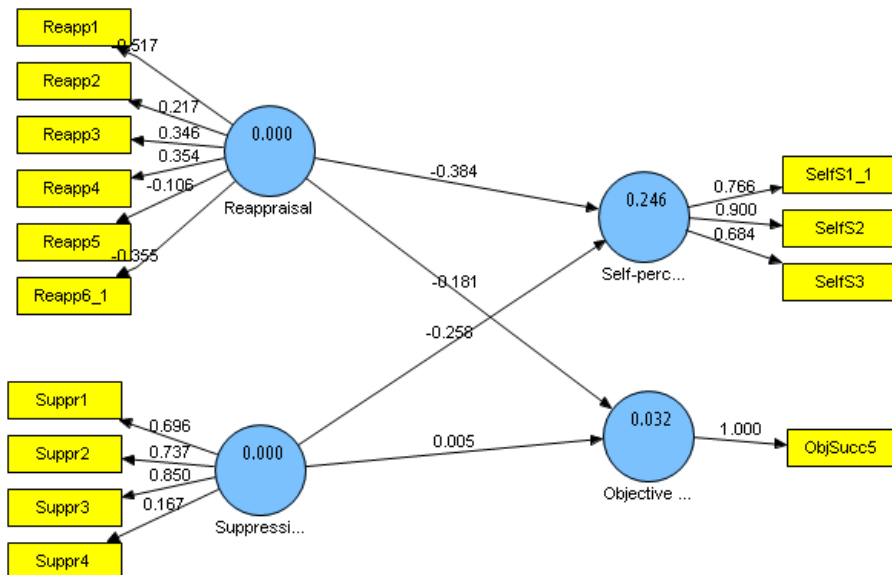


Figure A10.3.ii. Original PLS output for model investing the direct effects of reappraisal and suppression on self-perceptions of success and objective success.

Appendix 10.4: Model investigating the direct effects of Reappraisal and Suppression on External success

The analysis presented in this appendix considers the direct effect of reappraisal and suppression on external success, in the absence of any mediating variables. Table A10.4.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). The AVE, composite reliability and factor loadings for external success were high. However, for suppression and reappraisal, both the AVE and composite reliability were low, and there were problems with the factor loadings on both, with an indicator on both variables loading negatively. This appears unusual as these results are in contrast to other analyses which included these two variables, although are similar to that found in Appendix 10.3, which considered the direct effects on the other two success variables. These poor factor loadings also led to problems with the discriminant validity estimations, where some indicators were not loading as they should, and the correlation between reappraisal and external success, although negative, was higher in magnitude than the square root of the AVE (see Tables A10.4.ii and A10.4.iii).

Overall, the measurement model was problematic. However, given that this analysis provides supplementary information to that in the main analysis, the structural model was calculated, although caution is needed in drawing inferences from the results.

Table A10.4.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (reappraisal, suppression, external success).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Reappraisal	Reapp1	0.196	0.408	0.078	0.102
	Reapp2	0.163	-0.021		
	Reapp3	0.414	0.563		
	Reapp4	0.129	0.111		
	Reapp5	-0.523	-1.138		
	Reapp6	0.297	0.271		
Suppression	Suppr1	0.641	0.1	0.519	0.330
	Suppr2	0.851	0.982		
	Suppr3	0.390	-0.005		
	Suppr4	-0.181	-0.563		
External success	ExtSucc1	0.841	0.484	0.871	0.772
	ExtSucc2	0.915	0.648		

Table A10.4.ii. Average Variance Extracted and correlations between constructs (reappraisal, suppression, external success).

	1.	2.	3.
External success	0.879		
Reappraisal	-0.531	0.319	
Suppression	0.188	0.005	0.574

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.4.iii. Cross-loadings for measurement model (reappraisal, suppression, external success).

	External success	Reappraisal	Suppression
ExtS1	0.841	-0.384	0.165
ExtS2	0.915	-0.533	0.168
Reapp1	-0.116	0.196	0.124
Reapp2	0.006	0.163	0.280
Reapp3	-0.160	0.414	0.276
Reapp4	-0.032	0.129	-0.015
Reapp5	0.324	-0.523	0.224
Reapp6	-0.077	0.297	0.228
Suppr1	0.015	0.012	0.641
Suppr2	0.143	-0.009	0.851
Suppr3	-0.001	0.004	0.390
Suppr4	-0.082	-0.022	-0.181

Moving to examine the structural model, Table A10.4.iv demonstrates that reappraisal and suppression explained 31.9% of the variance in external success (a large effect), but despite this the cross validated redundancy suggests that there is a problem with the predictive relevance of the model. Table A10.4.v indicates that reappraisal has a large negative effect and suppression had a small positive effect on external success, but neither path reached significance.

Table A10.4.iv. Estimation of the inner model (reappraisal, suppression, external success).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
External success	0.319	Large	.678	-.168

Table A10.4.v. Statistical results for Path Coefficients (reappraisal, suppression, objective success, self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → External success	-0.532	1.181	0.450	0.450	-1.41; .350	.389	Large
Suppression → External success	0.191	0.737	0.259	0.259	-.317; .699	.053	Small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
 where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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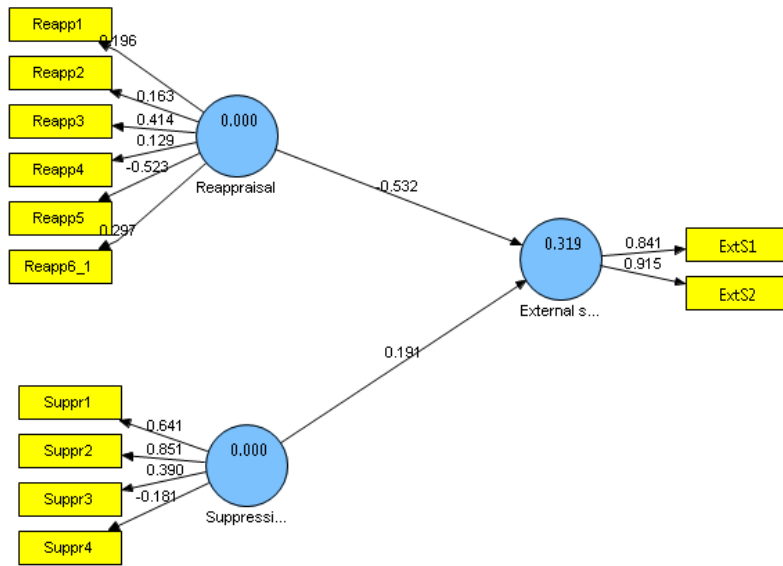


Figure A10.4.i. Original PLS output for model investigating the direct effects of reappraisal and suppression on external success.

Appendix 10.5: Model investigating the direct effects of Reappraisal and Suppression on Problem-Focused Coping

The analysis presented in this appendix considers the direct effect of reappraisal and suppression on problem-focused coping, in the absence of any mediating variables. Table A10.5.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). The composite reliabilities for the three variables were all high. The AVE was above .5 for suppression and problem-focused coping, but was a little below this for reappraisal. Three of the six indicators for reappraisal were above the recommended level of 0.7, but the other three were below this. Similarly, two of the four indicators for suppression were above 0.7, but the other two were below it, and three of the five indicators for problem-focused coping were above 0.7, while the other two were between .6 and .7. Discriminant validity was evident in the measurement. The Fornell-Larcker criterion was met as all of the correlations between latent variable pairs are lower than the square root of each variables AVE (see Table A10.5.ii). Furthermore, looking at the cross-loadings, (see Table A10.5.iii), all indicators load most highly on their own latent variable.

Table A10.5.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (reappraisal, suppression, problem-focused coping).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Reappraisal	Reapp1	0.723	0.277	0.810	0.421
	Reapp2	0.700	0.234		
	Reapp3	0.787	0.410		
	Reapp4	0.495	0.242		
	Reapp5	0.581	0.129		
	Reapp6	0.558	0.212		
Suppression	Suppr1	0.655	0.143	0.795	0.504
	Suppr2	0.866	0.554		
	Suppr3	0.786	0.455		
	Suppr4	0.468	0.147		
Problem-Focused Coping	ActiveCope	0.822	0.301	0.845	0.524
	InstSocSupp	0.649	0.288		
	PlanCope	0.773	0.292		
	ResCope	0.610	0.272		
	SupprCompAct	0.744	0.234		

Table A10.5.ii. Average Variance Extracted and correlations between constructs (reappraisal, suppression, problem-focused coping).

	1.	2.	3.
1. Problem-Focused Coping	0.724		
2. Reappraisal	0.541	0.649	
3. Suppression	0.126	0.037	0.710

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.5.iii. Cross-loadings for measurement model (reappraisal, suppression, problem-focused coping).

	Problem-Focused Coping	Reappraisal	Suppression
ActiveCope	0.822	0.428	0.051
InstSocSupp	0.649	0.394	0.132
PlanCope	0.772	0.452	-0.132
ResCope	0.610	0.355	0.213
SupprCompAct	0.744	0.296	0.227
Reapp1	0.357	0.723	-0.091
Reapp2	0.302	0.700	0.102
Reapp3	0.528	0.787	0.113
Reapp4	0.311	0.495	-0.022
Reapp5	0.167	0.581	0.072
Reapp6	0.273	0.558	-0.056
Suppr1	0.032	0.009	0.655
Suppr2	0.125	0.083	0.866
Suppr3	0.103	-0.018	0.786
Suppr4	0.033	-0.011	0.468

Moving to examine the structural model, Table A10.5.iv demonstrates that reappraisal and suppression explained 30.4% of the variance in problem-focused coping, which is a large effect. However, examining the path coefficients (Table A10.5.v) indicates that reappraisal has a large significant and positive effect on problem-focused coping. Suppression did not have a significant effect on problem-focused coping.

Table A10.5.iv. Estimation of the inner model (reappraisal, suppression and problem-focused coping).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Problem-focused coping	0.304	Large	.540	.178

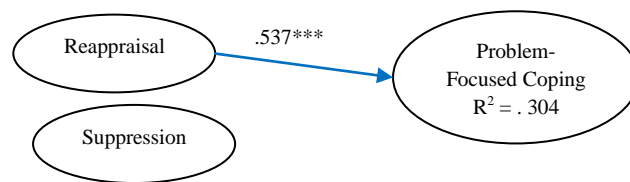


Figure A10.5.i. Results of Partial Least Squares analysis for the model investigating the direct effects of reappraisal and suppression on problem-focused coping. (***) p < .001; ** p < .01; * p < .05; non-significant paths are not shown).

Table A10.5.v. Statistical results for Path Coefficients (reappraisal, suppression, problem-focused coping).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Problem-focused coping	0.537***	5.98	0.090	0.090	.361; .713	.250	Medium-large
Suppression → Problem-focused coping	0.106	0.615	0.172	0.172	-.231; .443	.013	Very small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

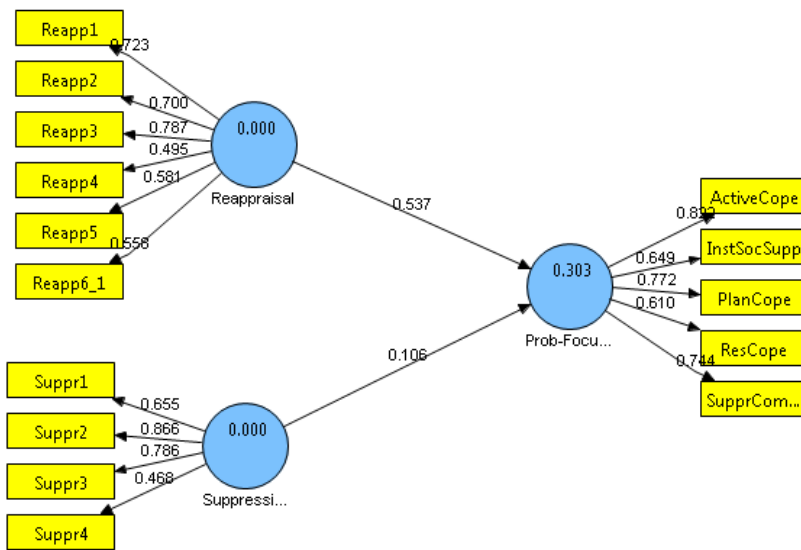


Figure A10.5.ii. Original PLS output for model investigating the direct effects of reappraisal and suppression on problem-focused coping.

Appendix 10.6: Model investigating the direct effects of Positive and Negative Anticipated Emotions on Objective Success and Self-perceptions of success

The analysis presented in this appendix considers the direct effect of anticipated positive and negative emotions on self-perceptions of success and objective success, in the absence of problem-focused coping as a mediating variable. Table A10.6.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). The composite reliabilities for the three variables were all high and the AVE's were above .5 for all variables. Three of the six indicators for anticipated positive emotions were above the recommended level of 0.7, two were a little below this ranging between 0.6 and 0.7, and one indicator had quite a poor loading at .194 (satisfaction). Five of the anticipated negative emotions indicators were above 0.7, and the other five were above 0.6. Two of the self-perceptions of success indicators were above 0.7, and the third approached this figure.

Discriminant validity was evident in the measurement. The Fornell-Larcker criterion was met as all of the correlations between latent variable pairs are lower than the square root of each variables AVE (see Table A10.6.ii). Furthermore, looking at the cross-loadings, (see Table A10.5.iii), all indicators load most highly on their own latent variable.

Table A10.6.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (anticipated emotions, self-perceptions of success and objective success).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Positive anticipated emotions	Delight	0.880	0.336	0.845	0.506
	Excitement	0.911	0.475		
	Gladness	0.670	-0.029		
	Happiness	0.713	0.157		
	Pride	0.660	0.339		
	Satisfaction	0.194	-0.231		
Negative anticipated emotions	Anger	0.820	0.219	0.915	0.519
	Depression	0.656	0.005		
	Disappointment	0.726	0.137		
	Discomfort	0.695	-0.066		
	Fear	0.679	0.242		
	Frustration	0.781	0.261		
	Guilt	0.788	0.188		
	Sadness	0.689	0.203		
	Shame	0.637	0.110		
Worry	0.708	0.053			
Objective Success	ObjSucc	1.00	1.00	1.00	1.00
Self-Perceptions of Success	SelfSucc1	0.893	0.567	0.834	0.628
	SelfSucc2	0.684	0.220		
	SelfSucc3	0.787	0.435		

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Table A10.6.ii. Average Variance Extracted and correlations between constructs (anticipated emotions, self-perceptions of success and objective success).

	1.	2.	3.	4.
1. Negative anticipated emotions	0.720			
2. Objective Success	0.108	1.000		
3. Positive anticipated emotions	0.214	-0.015	0.711	
4. Self-perceptions of success	0.269	0.283	0.150	0.792

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A10.6.iii. Cross-loadings for measurement model (anticipated emotions, self-perceptions of success and objective success).

	Negative anticipated emotions	Objective Success	Positive anticipated emotions	Self-perceptions of success
Anger	0.820	0.015	0.239	0.231
Depression	0.656	-0.058	0.160	0.029
Disappointment	0.726	0.072	-0.009	0.119
Discomfort	0.695	-0.098	0.196	-0.031
Fear	0.679	0.090	-0.017	0.225
Frustration	0.781	0.118	0.189	0.234
Guilt	0.788	0.079	0.369	0.171
Sadness	0.689	0.025	0.153	0.209
Shame	0.637	0.095	0.314	0.080
Worry	0.708	0.117	-0.097	0.010
ObjSucc5	0.108	1.00	-0.015	0.283
Delight	0.134	0.057	0.880	0.101
Excitement	0.163	0.002	0.911	0.136
Gladness	0.146	0.003	0.670	-0.008
Happiness	0.208	-0.077	0.713	0.037
Pride	0.343	-0.058	0.660	0.091
Satisfaction	0.231	0.015	0.194	-0.064
SelfS1	0.258	0.301	0.187	0.893
SelfS2	0.111	0.271	0.045	0.684
SelfS3	0.224	0.120	0.078	0.787

Moving to examine the structural model, Table A10.6.iv demonstrates that both types of anticipated emotions combined explained 8.1% of the variance in self-perceptions of success (a small-medium effect) and 1.3% of the variance in objective success (a small effect). However, the cross validated redundancy estimates indicates that the model had poor predictive relevance for both success variables. None of the individual path coefficients reached significance (Table A10.6.v), although anticipated negative emotions did have a small effect on self-perceptions of success according to the effect size calculations.

Table A10.6.iv. Estimation of the inner model (anticipated emotions, self-perceptions of success and objective success).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Self-perceptions of success	0.081	Small-medium	.655	-.029
Objective success	0.013	Small	1.00	.003

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Table A10.6.v. Statistical results for Path Coefficients (anticipated emotions, self-perceptions of success and objective success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Anticipated positive emotions → self-perceptions of success	0.097	0.439	0.221	0.221	-.336; .530	.011	Very small
Anticipated positive emotions → objective success	-0.04	0.205	0.196	0.196	-.442; .362	.001	Negligible
Anticipated negative emotions → self-perceptions of success	0.097	0.888	0.279	0.279	-.450; .644	.062	Small
Anticipated negative emotions → objective success	0.117	0.590	0.198	0.198	-.271; .505	.013	Very small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

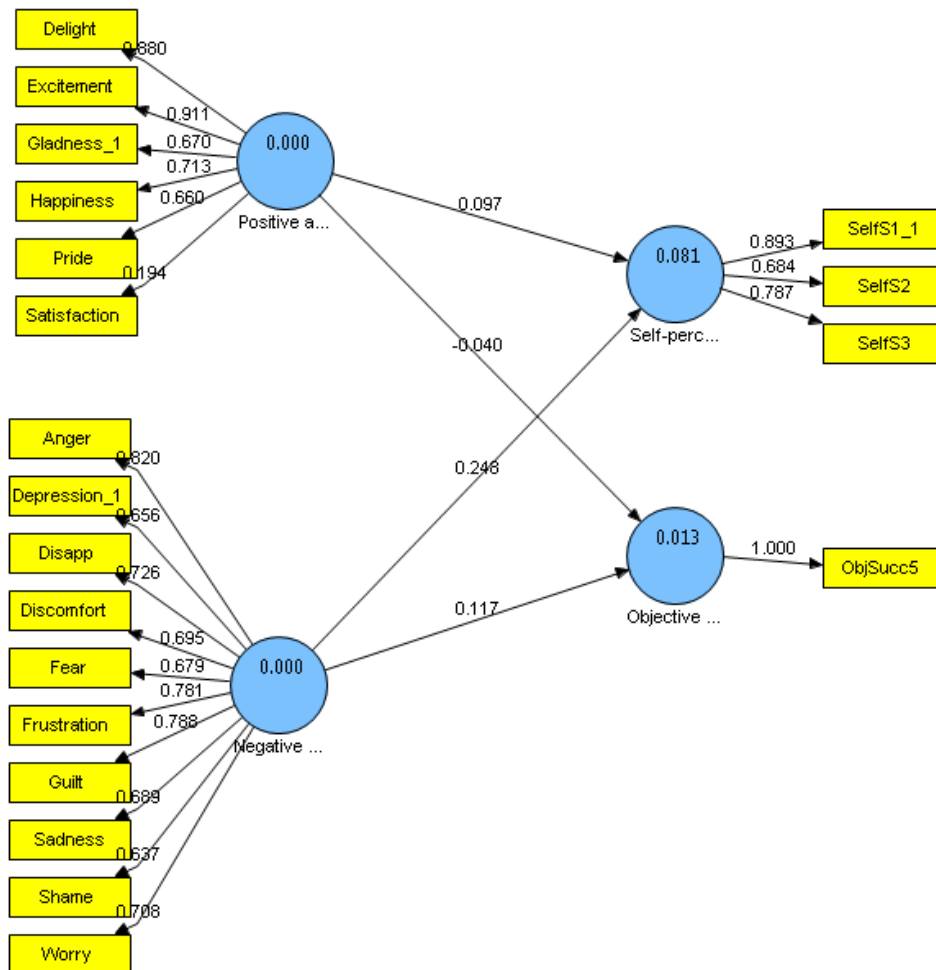


Figure A10.6.ii. Original PLS output for model investigating the direct effects of anticipated emotions on self-perceptions of success and objective success.

Appendix 10.7: Model investigating the direct effects of Positive and Negative Anticipated Emotions on External Success

The analysis presented in this appendix considers the direct effect of anticipated positive and negative emotions on external success, in the absence of problem-focused coping as a mediating variable. Table A10.7.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). The composite reliabilities for the three variables were all high and the AVE's were above .5 for external success and anticipated positive emotions, but below this for anticipated negative emotions. Both outer loadings were high for the external success variable. Three of the six indicators for anticipated positive emotions were above the recommended level of 0.7, two were a little below this ranging between 0.54 and 0.62, and one indicator had quite a poor loading at .282 (satisfaction). Only worry and fear loaded above 0.7 on anticipated negative emotions, although a number of others were close to this. The Fornell-Larcker criterion was met as all of the correlations between latent variable pairs were lower than the square root of each variables AVE (see Table A10.7.ii). Furthermore, looking at the cross-loadings, (see Table A10.7.iii), all indicators load most highly on their own latent variable, except for shame which also loads on anticipated positive emotions, and has a relatively low loading on its own latent variable.

Table A10.7.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (anticipated emotions, external success).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Positive anticipated emotions	Delight	0.786	0.145	0.852	0.516
	Excitement	0.905	0.452		
	Gladness	0.541	-0.142		
	Happiness	0.620	-0.115		
	Pride	0.949	0.675		
	Satisfaction	0.282	-0.058		
Negative anticipated emotions	Anger	0.552	0.140	0.814	0.339
	Depression	0.672	0.072		
	Disappointment	0.279	-0.203		
	Discomfort	0.599	-0.071		
	Fear	0.946	0.617		
	Frustration	0.291	0.002		
	Guilt	0.442	0.017		
	Sadness	0.438	-0.001		
	Shame	0.311	-0.02		
	Worry	0.857	0.452		
External Success	ExtSucc1	0.888	0.584	0.873	0.775
	ExtSucc2	0.873	0.551		

Table A10.7.ii. Average Variance Extracted and correlations between constructs (anticipated emotions, external success).

	1.	2.	3.
1. External success	0.880		
2. Negative anticipated emotions	0.370	0.582	
3. Positive anticipated emotions	-0.175	-0.040	0.718

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.7.iii. Cross-loadings for measurement model (anticipated emotions, external success).

	External success	Negative anticipated emotions	Positive anticipated emotions
ExtS1	0.888	0.310	-0.217
ExtS2	0.873	0.344	-0.087
Anger	0.079	0.552	0.262
Depression	0.041	0.672	0.036
Disappointment	-0.114	0.279	0.041
Discomfort	-0.040	0.599	0.160
Fear	0.348	0.946	-0.020
Frustration	0.001	0.291	0.259
Guilt	0.010	0.442	0.492
Sadness	0.000	0.438	0.110
Shame	-0.011	0.311	0.387
Worry	0.255	0.857	-0.107
Delight	-0.035	-0.041	0.786
Excitement	-0.110	-0.015	0.905
Gladness	0.035	0.154	0.541
Happiness	0.028	0.082	0.620
Pride	-0.164	0.009	0.949
Satisfaction	0.014	0.032	0.282

Moving to examine the structural model, Table A10.7.iv demonstrates that both types of anticipated emotions combined explained 16.3% of the variance in external success which is a medium effect). Despite the magnitude of this effect the cross validated redundancy figure is below zero, although the cross-validated commonality is above zero, indicating that there may be a potential issue with the predictive relevance of the model. None of the individual path coefficients reached significance (Table A10.7.v), although the effect size estimations suggest that anticipated negative emotions had a medium effect on external success, while anticipated positive emotions had a small effect.

Table A10.7.iv. Estimation of the inner model (anticipated emotions, external success).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Objective success	0.163	Medium	.817	-.040

Table A10.7.v. Statistical results for Path Coefficients (anticipated emotions, external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Anticipated positive emotions → external success	0.364	0.828	0.440	0.440	-.498; 1.23	.039	Small
Anticipated negative emotions → external success	-0.160	0.669	0.239	0.239	-.628; .308	.143	Medium

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

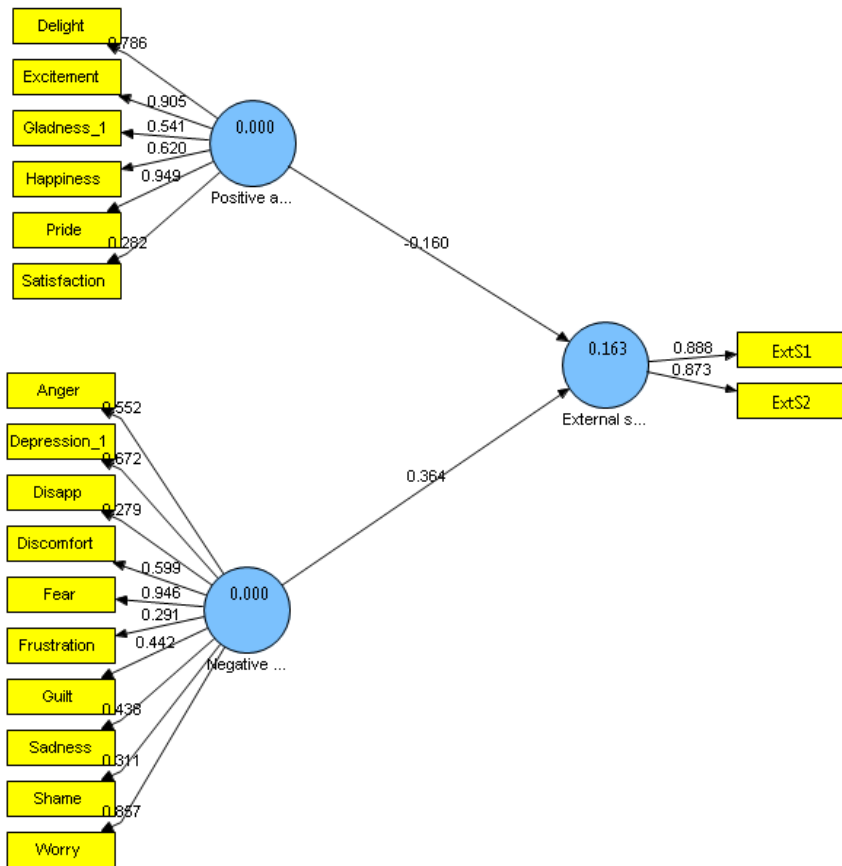


Figure A10.7.i. Original PLS output for model investigating the direct effect of anticipated emotions on external success.

Appendix 10.8: Model investigating the emotional variables, cognitive variables with planning, self-perceptions of success and objective success.

Table A10.8.i Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Reappraisal	Reap1	0.687	0.192	0.809	0.417
	Reap2	0.627	0.164		
	Reap3	0.740	0.369		
	Reap4	0.592	0.343		
	Reap5	0.665	0.258		
	Reap6	0.542	0.217		
Suppression	Supp1	0.228	-0.100	0.601	0.332
	Supp2	0.218	-0.171		
	Supp3	0.702	0.583		
	Supp4	0.859	0.758		
Positive anticipated emotions	Delight	0.867	0.263	0.904	0.616
	Excitement	0.802	0.262		
	Gladness	0.846	0.190		
	Happiness	0.883	0.211		
	Pride	0.717	0.197		
Negative anticipated emotions	Satisfaction	0.540	0.136	0.922	0.544
	Anger	0.752	0.149		
	Depression	0.752	0.171		
	Disappointment	0.774	0.203		
	Discomfort	0.792	0.099		
	Fear	0.689	0.114		
	Frustration	0.736	0.136		
	Guilt	0.775	0.128		
	Sadness	0.628	0.081		
	Shame	0.659	0.099		
Problem-Focused Coping	Worry	0.800	0.162	0.828	0.513
	ActiveCope	0.883	0.370		
	InstSocSupp	0.513	0.174		
	PlanCope	0.826	0.352		
	ResCope	0.371	0.008		
Mastery Approach	SupprCompAct	0.837	0.348	0.791	0.660
	G1MAGO	0.924	0.781		
Performance Approach	G2MAGO	0.682	0.408	0.634	0.507
	G1PAGO	0.368	0.347		
Performance Avoid	G2PAGO	0.938	0.930	0.175	0.521
	G1PAvGO	0.911	0.889		
Planning	G2PAvGO	-0.461	-0.412	0.898	0.689
	G1EPlan	0.805	0.270		
	G1ProPlan	0.826	0.322		
	G2EPlan	0.830	0.270		
Objective Success Self-Perceptions of Success	G2ProPlan	0.858	0.340	1.00	1.00
	ObjSucc	1.00	1.00		
	SelfSucc1	0.806	0.357		
	SelfSucc2	0.755	0.374		
	SelfSucc3	0.827	0.520	0.839	0.635

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Table A10.8.ii Average Variance Extracted by constructs and correlations between constructs to assess Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Negative anticipated emotions	0.738										
2. Objective success	0.064	1.00									
3. Performance Avoid goal orientation	-0.090	-0.122	0.722								
4. Performance approach goal orientation	0.039	0.121	0.022	0.712							
5. Planning	-0.047	0.158	-0.224	0.359	0.830						
6. Positive anticipated emotions	0.206	-0.01	-0.279	0.087	0.045	0.785					
7. Problem-focused coping	0.001	0.112	-0.025	0.205	0.101	0.411	0.716				
8. Reappraisal	-0.145	0.014	0.078	0.071	0.057	0.309	0.487	0.646			
9. Self-perceptions of success	0.149	0.271	-0.284	0.157	0.174	0.048	0.252	-0.067	0.797		
10. Suppression	0.382	0.085	-0.047	0.05	0.02	-0.064	0.024	-0.034	-0.062	0.576	
11. Mastery approach goal orientation	-0.218	-0.304	-0.04	-0.184	0.264	-0.178	-0.132	0.089	-0.166	-0.174	0.812

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.8.iii. Cross-loadings for measurement model

	Negative antic emotions	Objective success	Perf Avoid	Perf approach	Planning	Positive antic emotions	Problem-focused coping	Reappraisal	Self-percep of success	Suppression	Mastery approach n
Anger	0.752	0.015	-0.060	0.136	0.033	0.297	0.152	-0.174	0.232	0.305	-0.118
Depression	0.752	-0.058	0.057	0.090	-0.190	0.223	0.043	-0.012	0.024	0.366	-0.235
Disapp	0.774	0.072	-0.026	-0.054	-0.191	-0.037	-0.093	-0.268	0.081	0.376	-0.193
Discomfort	0.792	-0.098	-0.079	0.034	0.052	0.170	-0.030	-0.077	-0.033	0.221	-0.061
Fear	0.689	0.090	0.040	0.042	-0.015	0.026	-0.020	0.082	0.199	0.308	-0.117
Frustration	0.736	0.118	-0.245	0.045	0.109	0.156	-0.091	-0.315	0.227	0.196	-0.119
Guilt	0.775	0.079	-0.272	0.078	0.112	0.364	-0.021	-0.015	0.160	0.218	-0.233
Sadness	0.628	0.025	-0.010	-0.061	-0.079	0.241	0.163	0.008	0.195	0.176	-0.106
Shame	0.659	0.095	-0.126	-0.044	-0.007	0.345	0.154	0.135	0.085	0.220	-0.185
Worry	0.800	0.117	-0.003	-0.006	-0.039	-0.064	-0.116	-0.209	-0.005	0.310	-0.179
ObjSucc5	0.064	1.00	-0.122	0.121	0.158	-0.010	0.112	0.014	0.271	0.085	-0.304
G1PAvGO	0.033	-0.140	0.911	-0.062	-0.271	-0.244	0.007	0.019	-0.232	-0.014	-0.064
G2PAvGO	0.289	-0.005	-0.461	-0.186	-0.042	0.150	0.075	-0.150	0.189	0.084	-0.041
G1PAGO	0.038	0.034	-0.373	0.368	0.123	0.034	0.100	0.123	0.117	-0.051	-0.045
G2PAGO	0.027	0.117	0.163	0.938	0.340	0.081	0.183	0.030	0.125	0.073	-0.181
G1EPlan	-0.101	0.117	-0.090	0.236	0.805	-0.003	0.136	0.069	0.134	-0.146	0.275
G1ProPlan	-0.162	0.103	-0.201	0.259	0.826	-0.032	0.157	0.111	0.095	-0.129	0.349
G2EPlan	0.028	0.096	-0.196	0.322	0.830	0.127	0.041	-0.002	0.138	0.159	0.108
G2ProPlan	0.072	0.199	-0.240	0.365	0.858	0.064	0.008	0.009	0.204	0.170	0.142
Delight	0.110	0.057	-0.288	0.225	0.149	0.867	0.393	0.275	0.085	-0.053	-0.130
Excitement	0.128	0.002	-0.307	0.208	0.190	0.802	0.422	0.175	0.113	-0.141	-0.148
Gladness	0.125	0.003	-0.033	0.008	-0.052	0.846	0.335	0.306	-0.029	-0.044	-0.136
Happiness	0.158	-0.077	-0.216	0.071	-0.038	0.883	0.278	0.279	-0.001	-0.059	-0.144
Pride	0.306	-0.058	-0.281	-0.107	-0.083	0.717	0.235	0.208	0.066	0.034	-0.218

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Table A10.8.iii (cont.)

	Negative antic emotions	Objective success	Perf Avoid	Perf approach	Planning	Positive antic emotions	Problem-focused coping	Reappraisal	Self-percep of success	Suppression	Mastery approach
Satisfaction	0.189	0.015	-0.115	-0.163	-0.071	0.540	0.207	0.238	-0.082	0.007	-0.047
ActiveCope	0.079	0.135	-0.008	0.219	0.106	0.404	0.883	0.431	0.181	0.029	-0.157
InstSocSupp	-0.097	0.181	-0.049	0.188	0.237	0.170	0.513	0.385	0.020	0.057	0.019
PlanCope	-0.130	-0.061	-0.044	0.079	-0.004	0.323	0.826	0.439	0.288	-0.091	-0.036
ResCope	-0.118	0.068	0.042	0.003	0.042	-0.048	0.371	0.306	0.029	0.143	0.023
SupprCompAct	0.100	0.149	0.004	0.183	0.062	0.342	0.837	0.298	0.231	0.099	-0.188
Reapp1	-0.069	0.088	-0.169	-0.014	0.068	0.135	0.263	0.687	0.193	-0.115	0.221
Reapp2	-0.094	-0.058	0.275	0.033	-0.008	0.099	0.259	0.627	-0.072	0.062	0.097
Reapp3	-0.079	-0.043	0.179	0.009	0.040	0.286	0.486	0.740	-0.121	0.041	0.029
Reapp4	-0.014	-0.045	-0.112	0.124	0.000	0.293	0.346	0.592	-0.149	-0.010	0.072
Reapp5	-0.054	0.064	0.132	0.069	0.079	0.200	0.146	0.665	-0.051	-0.017	-0.012
Reapp6	-0.315	0.100	0.018	0.022	0.045	0.041	0.267	0.542	0.076	-0.136	-0.008
SelfS1	0.156	0.301	-0.214	0.183	0.067	0.131	0.198	-0.008	0.806	-0.037	-0.271
SelfS2	0.006	0.271	-0.294	0.093	0.281	-0.023	0.074	-0.051	0.755	-0.065	-0.054
SelfS3	0.176	0.120	-0.189	0.110	0.086	0.020	0.296	-0.087	0.827	-0.047	-0.094
Suppr1	-0.052	0.003	0.264	-0.198	-0.171	-0.065	0.049	0.019	-0.143	0.228	-0.143
Suppr2	-0.094	0.122	0.175	-0.123	0.119	-0.139	0.047	0.079	-0.198	0.218	-0.031
Suppr3	0.243	-0.040	-0.055	-0.045	-0.018	0.017	0.103	-0.009	-0.273	0.702	-0.045
Suppr4	0.289	0.171	0.055	0.047	0.045	-0.138	-0.030	-0.018	0.065	0.859	-0.221
G1MAGO	-0.195	-0.242	-0.020	-0.080	0.276	-0.195	-0.127	0.061	-0.087	-0.143	0.924
G2MAGO	-0.162	-0.281	-0.060	-0.298	0.120	-0.064	-0.081	0.102	-0.241	-0.152	0.682

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Table A10.8.iv Estimation of the structural model (emotional variables, cognitive variables with planning, objective success and self-perceptions of success).

	Direct effects only model				Direct and indirect effects model			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Positive anticipated emotions	.249	Large	.607	.159	.238	Medium-Large	.608	.201
Negative anticipated emotions	.189	Medium	.517	.152	.105	Medium	.483	.057
Problem-focused coping	.176	Medium	.470	.066	.368	Large	.481	.251
Mastery Approach	N/A	N/A	N/A	N/A	.037	Small	.764	.030
Performance Approach	N/A	N/A	N/A	N/A	.032	Small	.419	.093
Performance Avoid	N/A	N/A	N/A	N/A	.087	Small-medium	-.010	-.201
Planning	.290	Large	.711	.156	.279	Large	.712	.167
Objective success	.034	Small	1.00	.053	.191	Medium	1.00	.335
Self-perceptions of success	.086	Small	.704	-.062	.268	Large	.698	.043

Table A10.8.v Statistical results for Path Coefficients in direct effects only model (emotional variables, cognitive variables with planning, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f ²	f ² effect size
Planning → Objective success	0.148	1.22	0.122	0.122	-.136; .432	.022	Small
Planning → Self-perceptions of success	0.150	0.814	0.184	0.184	-.211; .511	.004	Negligible
Problem-focused coping → Objective success	0.097	0.707	0.137	0.137	-.172; .366	.009	Negligible
Problem-focused coping → Self-perceptions of success	0.237	1.36	0.174	0.174	-.104; .578	.026	Small
Negative anticipated emotions → Planning	-0.013	0.079	0.160	0.160	-.327; .301	-.004	Negligible
Negative anticipated emotions → PFC	-0.088	0.527	0.166	0.166	-.413; .237	.010	Very small
Positive anticipated emotions → Planning	0.009	0.088	0.105	0.105	-.197; .215	.052	Small
Positive anticipated emotions → Problem-focused coping	0.429**	2.75	0.156	0.156	.123; .735	.214	Medium
Mastery approach goal orientation → Negative anticipated emotions	-0.150	1.19	0.126	0.126	-.397; .097	.017	Very small
Mastery approach goal orientation → Planning	0.332**	2.97	0.112	0.112	.112; .552	.131	Small-medium
Mastery approach goal orientation → Positive anticipated emotions	-0.236*	1.86	0.127	0.127	-.485; .013	.076	Small
Performance approach goal orientation → Negative anticipated emotions	0.003	0.025	0.133	0.133	-.258; .264	.000	Negligible
Performance approach → Planning	0.424***	3.221	0.132	0.132	.165; .683	.238	Medium
Performance approach goal orientation → Positive anticipated emotions	0.031	0.186	0.169	0.169	-.300; .362	-.001	Negligible
Performance Avoid goal orientation → Negative anticipated emotions	-0.070	0.288	0.244	0.244	-.548; .408	.004	Negligible
Performance Avoid → Planning	-0.218	1.24	0.176	0.176	-.563; .127	.062	Small
Performance Avoid goal orientation → Positive anticipated emotions	-0.322*	1.84	0.175	0.175	-.665; .021	.133	Small-medium
Reappraisal → Negative anticipated emotions	-0.115	0.471	0.244	0.244	-.593; .363	.027	Small
Reappraisal → Positive anticipated emotions	0.349	1.62	0.216	0.216	-.074; .772	.145	Medium
Suppression → Negative anticipated emotions	0.349	1.14	0.305	0.305	-.249; .947	.044	Small
Suppression → Positive anticipated emotions	-0.110	0.683	0.161	0.161	-.426; .206	.112	Small-medium

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
 where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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Table 10.8.vi Statistical results for Path Coefficients in fully specified model (emotional variables, cognitive variables with planning, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Planning → Objective success	0.255*	1.73	0.148	0.148	-.035; .545	.067	Small
Planning → Self-perceptions of success	0.173	1.16	0.150	0.150	-.121; .467	.030	Small
Problem-focused coping → Objective success	0.095	0.622	0.152	0.152	-.188; .378	.012	Very small
Problem-focused coping → Self-perceptions of success	0.303*	1.75	0.173	0.173	-.036; .642	.086	Small
Negative anticipated emotions → Planning	0.003	0.017	0.165	0.165	-.320; .326	-.006	Negligible
Negative anticipated emotions → Problem-focused coping	-0.051	0.381	0.135	0.135	-.316; .214	.006	Negligible
Negative anticipated emotions → Objective success	0.028	0.196	0.143	0.143	-.252; .308	-.006	Negligible
Negative anticipated emotions → Self-perceptions of success	0.131	0.826	0.158	0.158	-.179; .441	.007	Negligible
Positive anticipated emotions → Planning	0.035	0.265	0.132	0.132	-.224; .294	.012	Very small
Positive anticipated emotions → Problem-focused coping	0.217	1.50	0.145	0.145	-.067; .501	.047	Small
Positive anticipated emotions → Objective success	-0.167	0.965	0.173	0.173	-.506; .172	.025	Small
Positive anticipated emotions → Self-perceptions of success	-0.200	1.50	0.133	0.133	-.461; .061	.044	Small
Mastery approach goal orientation → Negative anticipated emotions	-0.196	1.43	0.137	0.137	-.465; .073	.027	Small
Mastery approach goal orientation → Planning	0.368**	3.20	0.115	0.115	.143; .593	.153	Medium
Mastery approach goal orientation → Positive anticipated emotions	-0.220*	1.72	0.128	0.128	-.471; .031	.055	Small
Mastery Approach goal orientation → Problem-focused coping	-0.078	0.592	0.131	0.131	-.335; .179	.005	Negligible
Mastery Approach goal orientation → Objective success	-0.410***	3.46	0.118	0.118	-.641; -.179	.148	Medium
Mastery Approach goal orientation → Self-perceptions of success	-0.264*	1.67	0.158	0.158	-.574; .046	.057	Small
Performance approach goal orientation → Negative anticipated emotions	0.025	0.165	0.148	0.148	-.265; .315	-.004	Negligible
Performance approach goal orientation → Planning	0.462**	2.68	0.173	0.173	.123; .801	.258	Medium
Performance approach goal orientation → Positive anticipated emotions	0.003	0.014	0.188	0.188	-.365; .371	.206	Medium
Performance Approach goal orientation → Problem-focused coping	0.162	1.15	0.141	0.141	-.114; .438	.038	Small
Performance Approach goal orientation → Objective success	-0.065	0.393	0.165	0.165	-.388; .258	.004	Negligible
Performance Approach goal orientation → Self-perceptions of success	-0.018	0.118	0.157	0.157	-.326; .290	.001	Negligible
Performance Avoid goal orientation → Negative anticipated emotions	-0.219	0.984	0.223	0.223	-.656; .218	.023	Small
Performance Avoid goal orientation → Planning	-0.192	0.988	0.194	0.194	-.572; .188	.043	Small
Performance Avoid goal orientation → Positive anticipated emotions	-0.305	1.60	0.191	0.191	-.679; .069	.119	Small-medium

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Table 10.8.vi (cont.).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Performance Avoid goal orientation → Problem-focused coping	-0.086	0.543	0.159	0.159	-.398; .226	.003	Negligible
Performance Avoid goal orientation → Objective success	-0.110	0.655	0.168	0.168	-.439; .219	.010	Very small
Performance Avoid goal orientation → Self-perceptions of success	-0.217	1.44	0.151	0.151	-.513; .079	.023	Small
Reappraisal → Negative anticipated emotions	-0.094	0.487	0.192	0.192	-.470; .282	.016	Very small
Reappraisal → Positive anticipated emotions	0.369*	2.17	0.170	0.170	.036; .702	.155	Medium
Reappraisal → Mastery approach	0.116	0.849	0.136	0.136	-.151; .383	.013	Very small
Reappraisal → Performance approach	0.081	0.454	0.179	0.179	-.270; .432	.008	Negligible
Reappraisal → Performance avoid	0.143	0.749	0.192	0.192	-.233; .519	.032	Small
Reappraisal → Planning	-0.011	0.083	0.129	0.129	-.264; .242	-.011	Very small
Reappraisal → Problem-focused coping	0.450**	2.98	0.151	0.151	.154; .746	.205	Medium
Reappraisal → Objective success	0.062	0.326	0.190	0.190	-.310; .434	-.001	Negligible
Reappraisal → Self-perceptions of success	-0.068	0.350	0.194	0.194	-.448; .312	-.008	Negligible
Suppression → Negative anticipated emotions	0.038	0.138	0.272	0.272	-.495; .571	.007	Negligible
Suppression → Positive anticipated emotions	-0.101	0.689	0.147	0.147	-.389; .187	.009	Negligible
Suppression → Mastery approach	-0.160	1.01	0.159	0.159	-.472; .152	.027	Small
Suppression → Performance approach	-0.163	0.914	0.178	0.178	-.512; .186	.028	Small
Suppression → Performance avoid	0.249	1.22	0.205	0.205	-.153; .651	.074	Small
Suppression → Planning	0.163	0.887	0.184	0.184	-.198; .524	.019	Small
Suppression → Problem-focused coping	0.122	0.860	0.142	0.142	-.156; .400	.005	Negligible
Suppression → Objective success	0.021	0.122	0.172	0.172	-.316; .358	-.002	Negligible
Suppression → self-perceptions of success	-0.212	1.14	0.185	0.185	-.575; .151	.044	Small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
 where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval (Hinkle, Wiersma & Jurs, 1998)

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Table A10.7.vii Test of the indirect effects of reappraisal and suppression.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → positive anticipated emotions → problem-focused coping	.080	.078	.075	1.07	-.06; .24
Reappraisal → negative anticipated emotions → problem-focused coping	.005	.006	.036	.139	-.06; .09
Reappraisal → positive anticipated emotions → planning	.013	.008	.053	.245	-.11; .11
Reappraisal → negative anticipated emotions → planning	.000	-.002	.036	.000	-.08; .07
Suppression → positive anticipated emotions → problem-focused coping	-.022	-.021	.042	-.524	-.12; .06
Suppression → negative anticipated emotions → problem-focused coping	-.002	-.007	.043	-.047	-.11; .08
Suppression → positive anticipated emotions → planning	-.004	-.001	.025	-.160	-.05; .06
Suppression → negative anticipated emotions → planning	.000	-.006	.046	.000	-.11; .08
Reappraisal → positive anticipated emotions → objective success	.035	-.062	.080	.478	-.24; .07
Reappraisal → positive anticipated emotions → self-perceptions of success	-.074	-.067	.064	-1.16	-.20; .05
Reappraisal → negative anticipated emotions → objective success	-.003	.002	.032	-.094	-.07; .08
Reappraisal → negative anticipated emotions → self-perceptions of success	-.012	-.003	.041	-.293	-.09; .09
Reappraisal → problem-focused coping → objective success	.043	.045	.076	.568	-.10; .21
Reappraisal → problem-focused coping → self-perceptions of success	.136	.140	.096	1.42	-.03; .35
Reappraisal → planning → objective success	-.003	.005	.037	-.081	-.07; .09
Reappraisal → planning → self-perceptions of success	-.002	.004	.031	-.065	-.06; .08
Suppression → positive anticipated emotions → objective success	-.010	.016	.038	-.263	-.05; .09
Suppression → positive anticipated emotions → self-perceptions of success	.020	.021	.038	.526	-.04; .09
Suppression → negative anticipated emotions → objective success	.001	.007	.043	.023	-.08; .10
Suppression → negative anticipated emotions → self-perceptions of success	.005	.028	.056	.089	-.06; .16
Suppression → problem-focused coping → objective success	.012	.011	.032	.375	-.05; .09
Suppression → problem-focused coping → self-perceptions of success	.037	.040	.057	.649	-.05; .17
Suppression → planning → objective success	.042	.030	.057	.737	-.08; .16
Suppression → planning → self-perceptions of success	.028	.028	.050	.560	-.04; .16

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)
 $t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

(Lindley & Scott, 1984)

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Table A10.8.viii Test of the indirect effects of Positive and Negative Anticipated Emotions

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Positive anticipated emotions → problem-focused coping → objective success	.021	.022	.042	.500	-.05; .12
Positive anticipated emotions → problem-focused coping → self-perceptions of success	.066	.068	.068	.971	-.04; .22
Positive anticipated emotions → planning → objective success	.009	.004	.035	.257	-.07; .08
Positive anticipated emotions → planning → self-perceptions of success	.006	.005	.030	.200	-.05; .07
Negative anticipated emotions → problem-focused coping → objective success	-.005	-.008	.026	-.192	-.07; .04
Negative anticipated emotions → problem-focused coping → self-perceptions of success	-.015	-.023	.050	-.300	-.14; .07
Negative anticipated emotions → planning → objective success	.001	-.002	.047	.021	-.11; .09
Negative anticipated emotions → planning → self-perceptions of success	.001	.007	.039	.026	-.07; .10

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

Table A10.8.ix Test of the indirect effects of Reappraisal and Suppression via two sequential mediators.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → positive anticipated emotions → problem-focused coping → objective success	.008	.008	.018	.444	-.02; .05
Reappraisal → positive anticipated emotions → problem-focused coping → self-perceptions of success	.024	.026	.031	.774	-.02; .10
Reappraisal → negative anticipated emotions → problem-focused coping → objective success	.000	.001	.006	.000	-.01; .02
Reappraisal → negative anticipated emotions → problem-focused coping → self-perceptions of success	.002	.001	.012	.167	-.02; .03
Reappraisal → positive anticipated emotions → planning → objective success	.004	.001	.015	.267	-.03; .03
Reappraisal → positive anticipated emotions → planning → self-perceptions of success	.002	.002	.012	.167	-.02; .03
Reappraisal → negative anticipated emotions → planning → objective success	.000	.000	.010	.000	-.02; .02
Reappraisal → negative anticipated emotions → planning → self-perceptions of success	.000	-.001	.009	.000	-.02; .01
Suppression → positive anticipated emotions → problem-focused coping → objective success	-.002	-.002	.009	-.222	-.02; .01
Suppression → positive anticipated emotions → problem-focused coping → self-perceptions of success	-.007	-.007	.015	-.875	-.04; .02
Suppression → negative anticipated emotions → problem-focused coping → objective success	.000	-.001	.008	.000	-.02; .01
Suppression → negative anticipated emotions → problem-focused coping → self-perceptions of success	-.001	-.003	.015	-.067	-.04; .03

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Table A10.8.ix (cont.)

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Suppression → positive anticipated emotions → planning → objective success	.001	.000	.007	.143	-.01; .01
Suppression → positive anticipated emotions → planning → self-perceptions of success	.001	.000	.006	.167	-.01; .01
Suppression → negative anticipated emotions → planning → objective success	.000	-.002	.014	.000	-.04; .02
Suppression → negative anticipated emotions → planning → self-perceptions of success	.000	-.001	.010	.000	-.02; .02

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

Table A10.8.x Test of total indirect effects.

Total Indirect effect (Σab - c')	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → Objective Success	-.061	-.046	.140	.436	-.33; .22
Reappraisal → Self-perceptions of success	.023	.046	.163	.141	-.28; .35
Reappraisal → problem-focused coping	.065	.056	.111	.586	-.18; .26
Reappraisal → planning	.063	.044	.125	.504	-.22; .27
Suppression → Objective Success	.072	.080	.132	.545	-.18; .33
Suppression → Self-perceptions of success	.034	.092	.169	.201	-.21; .42
Suppression → problem-focused coping	-.067	-.060	.108	-.620	-.28; .13
Suppression → planning	-.187	-.155	.137	-1.36	-.43; .10
Anticipated positive emotions → objective success	.029	.026	.060	.483	-.09; .15
Anticipated positive emotions → self-perceptions of success	.072	.074	.080	.900	-.06; .25
Anticipated negative emotions → objective success	-.004	-.011	.062	-.065	-.13; .10
Anticipated negative emotions → self-perceptions of success	-.015	-.017	.069	-.217	-.15; .11

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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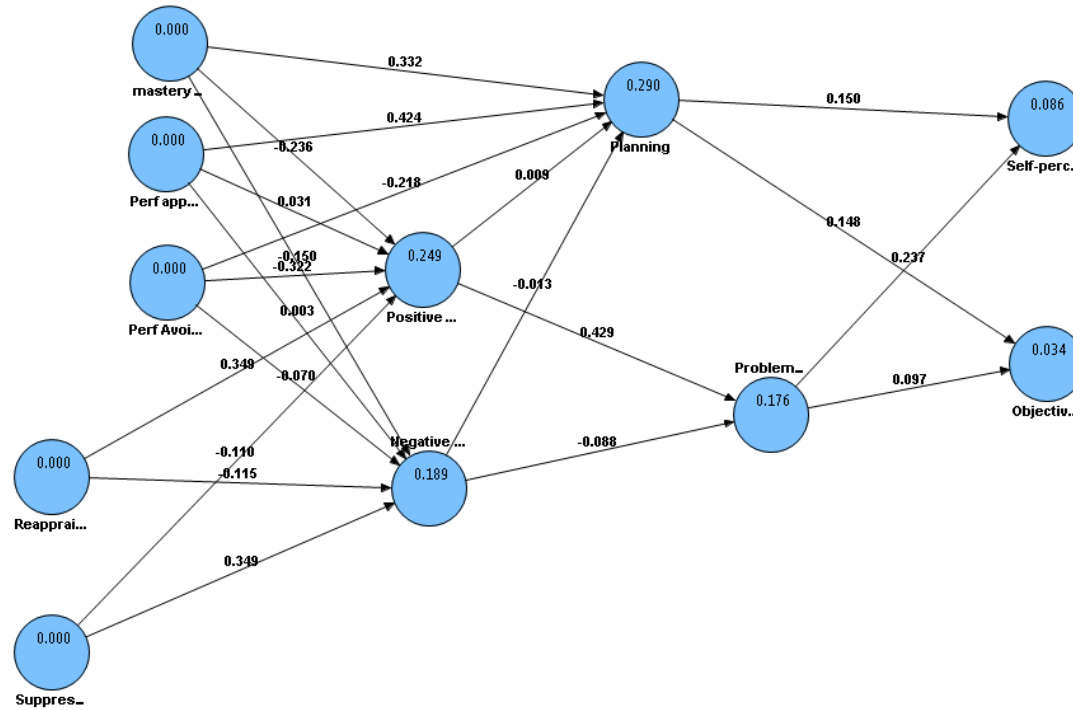


Figure A10.8.i. PLS output for direct effects only model (emotional variables, cognitive variables with planning, self-perceptions of success and objective success). NOTE: Measurement model is hidden for ease of interpretation.

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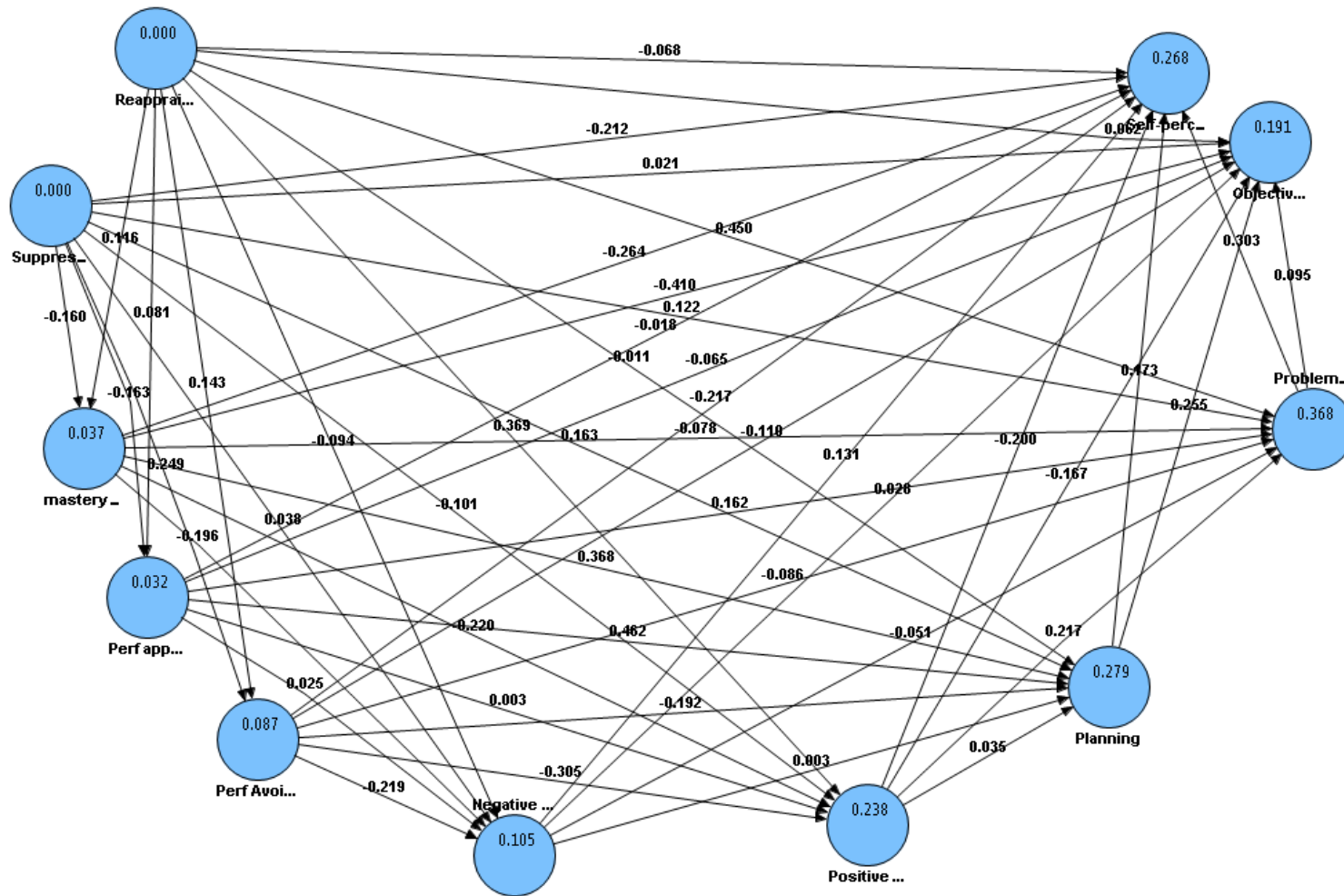


Figure A10.8.ii. PLS output for fully specified model (emotional variables, cognitive variables with planning, self-perceptions of success and objective success). NOTE: Measurement model is hidden for ease of interpretation.

Appendix 10.9: Model investigating the effects of the Emotional and Cognitive components on External Success

This appendix outlines the analysis of the effects of the emotional and cognitive components (with planning) of the model on external success. As such, it presents a similar analysis to that outlined in 10.4.1, but with external success included instead of self-perceptions of success and objective success. The power of the sample size is only sufficient to determine large effects in this analysis, so effect size estimations were relied upon.

Table A10.9.i. Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Reappraisal	Reap1	0.731	0.180	0.853	0.498
	Reap2	0.707	0.173		
	Reap3	0.874	0.389		
	Reap4	0.489	0.201		
	Reap5	0.696	0.196		
	Reap6	0.682	0.252		
Suppression	Supp1	0.122	-0.270	0.542	0.285
	Supp2	0.263	-0.167		
	Supp3	0.746	0.789		
	Supp4	0.708	0.690		
Positive anticipated emotions	Delight	0.929	0.246	0.929	0.691
	Excitement	0.894	0.236		
	Gladness	0.841	0.176		
	Happiness	0.896	0.198		
	Pride	0.830	0.190		
	Satisfaction	0.534	0.144		
Negative anticipated emotions	Anger	0.743	0.160	0.901	0.481
	Depression	0.726	0.098		
	Disappointment	0.698	0.180		
	Discomfort	0.775	0.168		
	Fear	0.760	0.135		
	Frustration	0.681	0.178		
	Guilt	0.630	0.127		
	Sadness	0.628	0.094		
	Shame	0.461	0.049		
	Worry	0.776	0.216		
Problem-Focused Coping	ActiveCope	0.900	0.359	0.840	0.537
	InstSocSupp	0.574	0.181		
	PlanCope	0.838	0.316		
	ResCope	0.305	-0.035		
	SupprCompAct	0.865	0.368		
Mastery Approach	G1MAGO	0.914	0.729	0.820	0.697
	G2MAGO	0.748	0.447		
Performance Approach	G1PAGO	0.617	0.595	0.675	0.514
	G2PAGO	0.804	0.787		
Performance Avoid	G1PAvGO	0.852	0.877	0.116	0.479
	G2PAvGO	-0.483	-0.525		
Planning	G1EPlan	0.831	0.315	0.887	0.663
	G1ProPlan	0.779	0.317		
	G2EPlan	0.814	0.296		
	G2ProPlan	0.832	0.301		
External Success	ExtSucc1	0.449	-0.140	0.719	0.594
	ExtSucc2	0.993	1.07		

For completeness, both versions of the model were assessed, but the measurement model outlined below presents the results for the version of the model with only the direct effects specified. Table A10.9.i outlines the AVE, composite reliability, and factor loadings for each latent construct. The AVEs for all variables except suppression were above the recommended level of 0.5, with reappraisal and performance avoid just below this level. However, the composite reliability for reappraisal is above the recommended level of 0.6, while for suppression is a little below this. All other variables with the exception of the performance avoid construct, which has a very low composite reliability were above the recommended level. This may be due to the fact that one of the two indicators for performance avoid

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loaded negatively. Although this is suboptimal, both indicators were retained in order to ensure that the composition of the measurement model was comparable with other models tested in the research.

With regard to the factor loadings for the latent variables, three of the reappraisal indicators were above 0.7, with two just below this, and the final indicator at .489. Two of the suppression indicators were above 0.7, but the remaining two loaded quite poorly. However, given that the CFAs indicated that the measurement of suppression was a good fit, all indicators were retained. All of the positive anticipated emotions indicators loaded highly, with the exception of satisfaction, which was somewhat lower at .534. Five of the negative anticipated emotions indicators loaded above 0.7, four loaded above 0.6 and the final indicator loaded at .461. Three of the problem-focused coping indicators were above 0.7, with the other two below this. For each of the goal orientations, one of the two indicators loaded highly, but the other loaded suboptimally. All of the planning indicators loaded above 0.7. Finally, one of the external success indicators loaded very highly, but the second loaded somewhat suboptimally.

Table A10.9.ii outlines the latent variable correlations. None of the correlations between any two latent variables were higher than the square root of the AVE for that respective latent variable. Hence, the Fornell-Larcker criterion is met, and discriminant validity is evident. As a second check on discriminant validity, the cross-loadings were compared (see Table A10.9.iii). The negative loading of the second performance avoid indicator meant that some of the cross loadings for this indicator were higher for other constructs. Two of the suppression indicators loaded similarly on the reappraisal construct as it did on its own latent variable, but this is likely due to a low loading in the first place. One of the problem-focused coping indicators (restraint coping) also loaded on the reappraisal construct. All other indicators loaded more highly on their own latent variable than on any other. Although there were some minor issues with the measurement model, it was deemed appropriate to continue with the interpretation of the structural model in order to assess the extent to which the model predicted external success.

Table A10.9.ii. Average Variance Extracted by constructs and correlations between constructs to assess Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. External Success	0.771									
2. Negative anticipated emotions	0.135	0.694								
3. Performance Avoid	-0.117	-0.167	0.692							
4. Performance approach	0.280	0.130	-0.108	0.717						
5. Planning	0.165	0.034	-0.458	0.393	0.814					
6. Positive anticipated emotions	-0.005	0.164	-0.340	0.094	0.161	0.831				
7. Problem-focused coping	-0.050	0.068	-0.100	0.220	0.233	0.543	0.733			
8. Reappraisal	-0.068	-0.216	0.176	0.117	0.137	0.313	0.613	0.706		
9. Suppression	0.039	0.472	-0.228	0.038	0.424	-0.018	-0.076	-0.018	0.534	
10. Mastery approach	-0.130	-0.096	-0.047	-0.188	0.261	-0.185	-0.045	0.066	0.082	0.835

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.9.iii Cross-loadings for measurement model

	External Success	Negative anticipated emotions	Performance Avoid	Performance approach	Planning	Positive anticipated emotions	Problem- focused coping	Reappraisal	Suppression	Mastery approach
ExtS1	0.449	0.034	0.126	0.109	0.035	-0.075	0.116	-0.006	-0.191	-0.044
ExtS2	0.993	0.131	-0.093	0.276	0.159	-0.015	-0.031	-0.065	0.011	-0.128
Anger	0.128	0.743	-0.161	0.173	0.075	0.305	0.240	-0.183	0.281	-0.063
Depression	-0.007	0.726	0.054	0.059	-0.154	0.038	0.065	-0.014	0.244	-0.107
Disappointment	-0.081	0.698	-0.019	0.016	-0.211	-0.024	-0.134	-0.297	0.400	-0.096
Discomfort	0.091	0.775	-0.143	0.116	0.065	0.161	0.039	-0.058	0.440	0.096
Fear	0.333	0.760	0.031	0.086	0.025	0.069	0.173	0.018	0.320	-0.161
Frustration	-0.003	0.681	-0.303	0.116	0.121	0.162	-0.056	-0.302	0.346	0.017
Guilt	0.154	0.630	-0.287	0.287	0.291	0.374	0.111	-0.001	0.215	-0.173
Sadness	0.085	0.628	-0.042	-0.081	-0.097	0.099	0.193	-0.117	0.194	-0.120
Shame	0.001	0.461	-0.147	0.036	0.057	0.310	0.115	0.133	0.144	-0.113
Worry	0.196	0.776	-0.101	0.052	0.040	-0.101	-0.052	-0.304	0.461	-0.077
G1PAvGO	-0.130	-0.013	0.852	-0.190	-0.432	-0.284	-0.048	0.014	-0.160	-0.043
G2PAvGO	0.006	0.297	-0.483	-0.111	0.15	0.174	0.111	-0.312	0.167	0.018
G1PAGO	0.127	0.022	-0.325	0.617	0.304	-0.131	0.043	0.071	0.034	0.004
G2PAGO	0.260	0.149	0.108	0.804	0.269	0.219	0.248	0.094	0.023	-0.242
G1EPlan	0.136	-0.015	-0.293	0.384	0.831	0.099	0.263	0.128	0.236	0.251
G1ProPlan	0.070	-0.060	-0.384	0.272	0.779	0.120	0.317	0.241	0.197	0.312
G2EPlan	0.124	0.075	-0.413	0.336	0.814	0.124	0.085	-0.026	0.506	0.117
G2ProPlan	0.210	0.118	-0.404	0.286	0.832	0.184	0.080	0.094	0.458	0.162
Delight	0.018	0.086	-0.320	0.208	0.259	0.929	0.549	0.374	0.023	-0.105
Excitement	-0.044	0.162	-0.419	0.173	0.246	0.894	0.492	0.224	-0.021	-0.182
Gladness	0.104	0.149	-0.048	-0.005	0.012	0.841	0.463	0.348	-0.042	-0.180
Happiness	0.046	0.168	-0.247	0.028	0.099	0.896	0.467	0.24	-0.033	-0.179

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Table A10.9.iii. (cont.)

	External Success	Negative anticipated emotions	Performance Avoid	Performance approach	Planning	Positive anticipated emotions	Problem- focused coping	Reappraisal	Suppression	Mastery approach
Pride	-0.048	0.219	-0.379	-0.023	0.021	0.830	0.354	0.187	-0.029	-0.234
Satisfaction	-0.123	0.022	-0.227	0.010	0.095	0.534	0.352	0.160	0.003	-0.030
ActiveCope	0.077	0.105	-0.122	0.224	0.239	0.503	0.900	0.572	-0.083	-0.065
InstSocSupp	0.005	-0.001	-0.116	0.194	0.275	0.248	0.574	0.462	0.185	0.005
PlanCope	-0.112	-0.004	-0.089	0.047	0.074	0.422	0.838	0.524	-0.139	0.076
ResCope	0.063	-0.138	-0.012	0.076	0.248	-0.048	0.305	0.379	0.094	0.074
SupprCompAct	-0.110	0.072	-0.020	0.251	0.224	0.496	0.865	0.465	-0.088	-0.120
Reapp1	-0.121	-0.116	-0.048	0.110	0.226	0.153	0.477	0.731	-0.081	0.218
Reapp2	-0.080	-0.061	0.376	0.087	0.011	0.183	0.325	0.707	0.073	0.065
Reapp3	-0.192	-0.303	0.204	0.037	0.118	0.295	0.483	0.874	-0.022	0.128
Reapp4	-0.024	0.006	-0.054	0.188	0.229	0.265	0.509	0.489	0.005	0.034
Reapp5	0.303	-0.066	0.122	0.200	0.138	0.208	0.289	0.696	-0.031	-0.044
Reapp6	-0.050	-0.217	0.106	-0.038	-0.096	0.177	0.493	0.682	-0.010	-0.131
Suppr1	-0.014	-0.112	0.493	-0.131	-0.158	-0.158	0.031	0.209	0.122	-0.264
Suppr2	0.117	-0.069	0.182	0.013	0.205	-0.078	0.089	0.303	0.263	-0.078
Suppr3	0.137	0.311	-0.129	0.007	0.340	0.003	0.020	0.046	0.746	0.118
Suppr4	-0.078	0.268	0.054	0.000	0.214	-0.111	-0.100	0.075	0.708	-0.138
G1MAGO	-0.006	-0.060	-0.016	-0.088	0.288	-0.165	-0.043	0.071	0.142	0.914
G2MAGO	-0.282	-0.118	-0.080	-0.277	0.116	-0.145	-0.031	0.032	-0.048	0.748

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Moving to examine the structural model, Table A10.9.iv provides an overview of both versions of the model. Only the results pertaining to external success are discussed as all other results were already assessed with the full sample. In the model which included only the direct effects between each sequential phase, 3.5% of the variance in external success was explained by planning and problem-focused coping. In the full specified model, this increased to 11.1% when all the variables were included as direct predictors of external success. However, even though this was a medium effect, the cross-validated redundancy was below zero, suggesting that there were potential issues with predictive relevance in both versions of the model. However, the cross-validated commonality figure was above zero in both versions.

Table A10.9.iv. Estimation of the structural model (emotional variables, cognitive variables with planning, objective external success).

	Direct effects only model				Direct and indirect effects model			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Positive anticipated emotions	.321	Large	.595	.168	.331	Large	.594	.157
Negative anticipated emotions	.294	Large	.523	.075	.158	Medium	.101	.514
Problem-focused coping	.296	Large	.374	.024	.568	Large	.418	.143
Mastery Approach	N/A	N/A	N/A	N/A	.117	Medium	.777	.034
Performance Approach	N/A	N/A	N/A	N/A	.031	Small	.548	.221
Performance Avoid	N/A	N/A	N/A	N/A	.380	Large	.160	.021
Planning	.433	Large	.510	.221	.482	Large	.536	.248
External success	.035	Small	.608	-.118	.111	Medium	.661	-.093

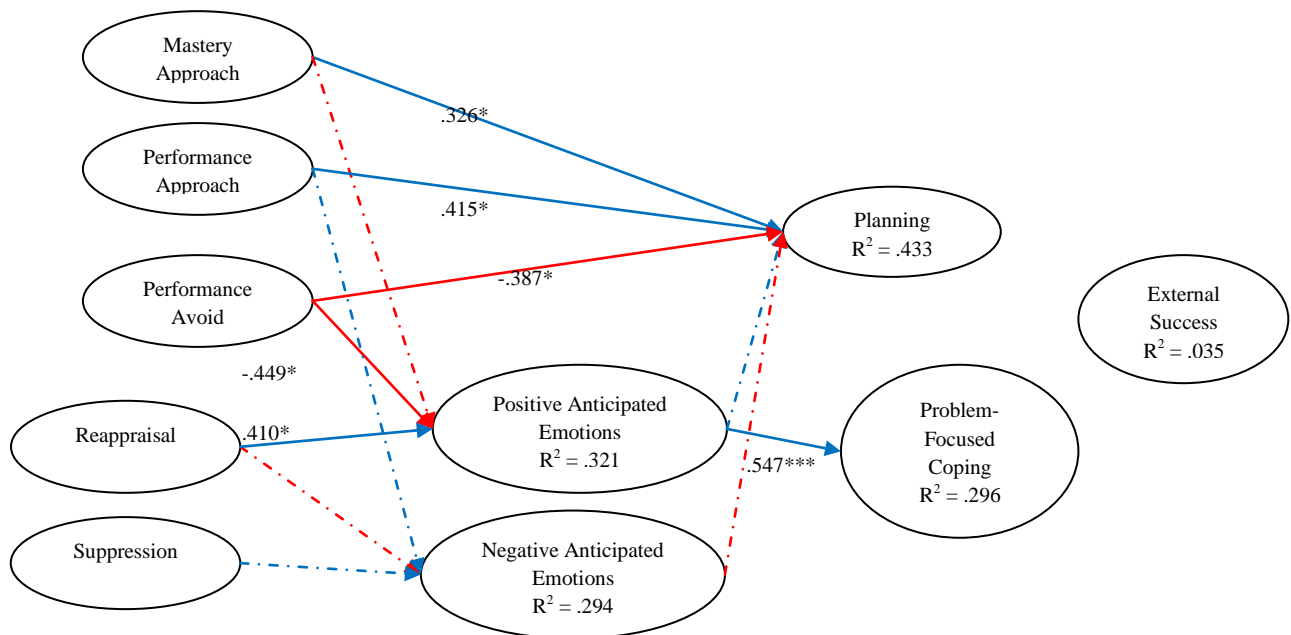


Figure A11.9.i. Results of Partial Least Squares analysis for the model investigating the relationships between emotional variables, cognitive variables with planning, objective and external success. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; dashed lined indicate non-significant paths; blue dashed paths- small positive effects, red dashed paths- small negative effects).

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To explain these effects in more detail, the individual paths were examined. Figure A10.9.i and Table A10.9.vi outline the results of the path coefficients for the model specifying the direct paths between each sequential phase of the model only. Largely the results are in line with the full sample, so only those pertaining to external success will be discussed in detail. Neither planning nor problem-focused coping were significant predictors of external success, and did not demonstrate any discernable effect on this form of success. In the fully specified model (see Figure A10.9.ii and Table A10.9.vi), none of the predictors had a significant effect on external success. However, both planning and performance approach goals had small positive effects. For ease of interpretation, only the significant paths and the non-significant but small effects paths are included in Figures A10.9.i and ii.

Table A10.9.v. Statistical results for Path Coefficients in direct effects only model (emotional variables, cognitive variables with planning, and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Planning → External success	0.186	0.801	0.233	0.233	-.271; .643	.015	Very small
Problem-focused coping → External success	-0.093	0.314	0.296	0.296	-.673; .487	.015	Very small
Negative anticipated emotions → Planning	-0.064	0.368	0.173	0.173	-.403; .275	.021	Small
Negative anticipated emotions → Problem-focused coping	-0.022	0.107	0.206	0.206	-.426; .382	.001	Negligible
Positive anticipated emotions → Planning	0.062	0.374	0.165	0.165	-.261; .385	.025	Small
Positive anticipated emotions → Problem-focused coping	0.547***	3.64	0.150	0.150	.253; .841	.361	Large
Mastery approach goal orientation → Negative anticipated emotions	-0.099	0.532	0.186	0.186	-.464; .266	-.003	Negligible
Mastery approach goal orientation → Planning	0.326*	1.92	0.170	0.170	-.007; .659	.169	Medium
Mastery approach goal orientation → Positive anticipated emotions	-0.234	1.38	0.169	0.169	-.565; .097	.074	Small
Performance approach goal orientation → Negative anticipated emotions	0.116	0.551	0.212	0.212	-.300; .532	.025	Small
Performance approach goal orientation → Planning	0.415*	2.12	0.196	0.196	.031; .799	.280	Medium
Performance approach goal orientation → Positive anticipated emotions	-0.043	0.141	0.303	0.303	-.637; .551	.001	Negligible
Performance Avoid goal orientation → Negative anticipated emotions	-0.015	0.061	0.252	0.252	-.509; .479	.003	Negligible
Performance Avoid goal orientation → Planning	-0.387*	2.20	0.176	0.176	.042; .732	.215	Medium
Performance Avoid goal orientation → Positive anticipated emotions	-0.449*	2.01	0.223	0.223	-.886; -.012	.251	Medium
Reappraisal → Negative anticipated emotions	-0.211	0.811	0.261	0.261	-.723; .301	.078	Small
Reappraisal → Positive anticipated emotions	0.410*	2.23	0.184	0.184	.049; .771	.224	Medium
Suppression → Negative anticipated emotions	0.468	1.03	0.454	0.454	-.422; 1.36	.221	Medium
Suppression → Positive anticipated emotions	-0.092	0.495	0.186	0.186	-.457; .273	.010	Very small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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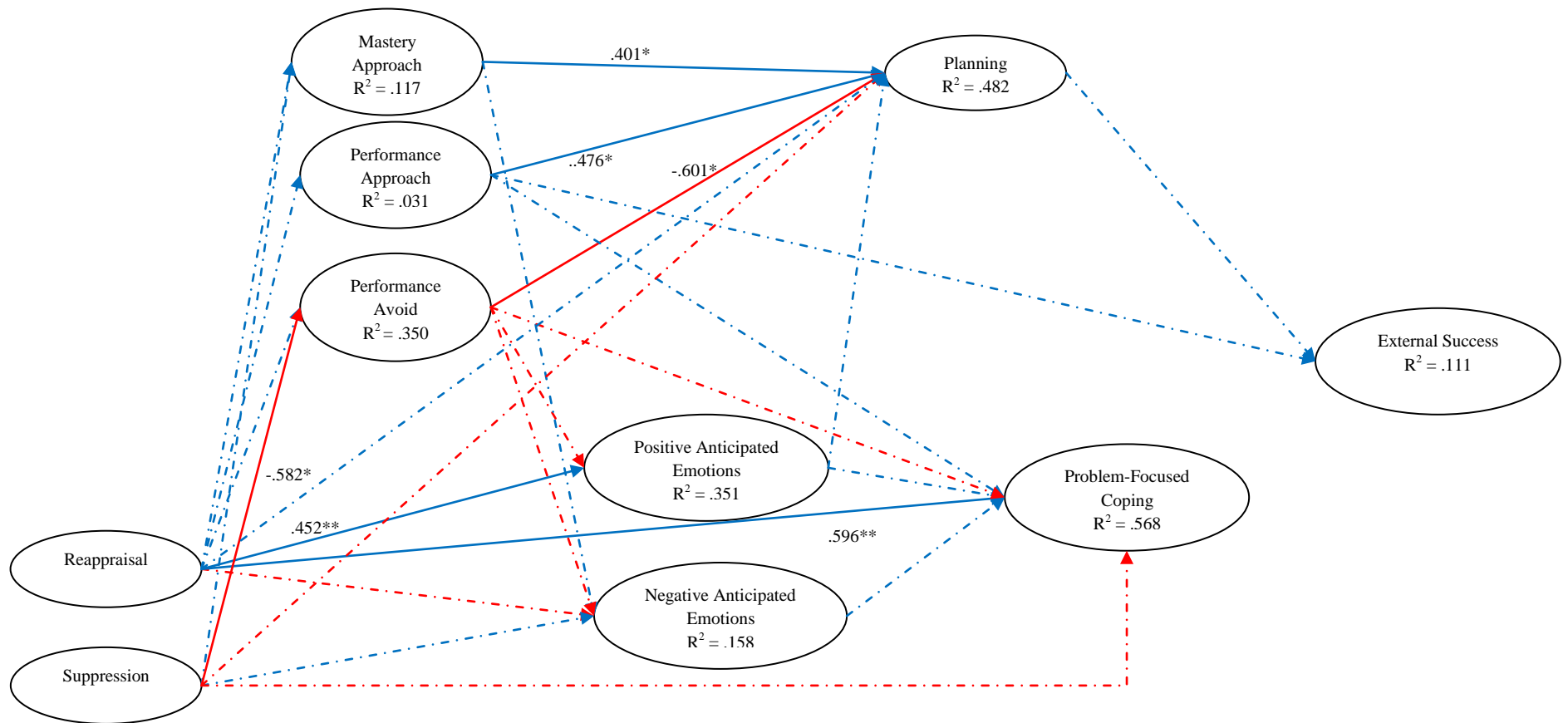


Figure A10.9.ii. Results of Partial Least Squares analysis for the fully specified model investigating the relationships between emotional variables, cognitive variables with planning, and external success. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$ (dashed lines indicate non-significant small effects).

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Table A10.9.vi. Statistical results for Path Coefficients in fully specified model (emotional variables, cognitive variables with planning, and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Planning → External success	0.105	0.351	0.299	0.299	.481; .691	.006	Negligible
Problem-focused coping → External success	0.121	0.321	0.376	0.376	-.616; .858	.001	Negligible
Negative anticipated emotions → Planning	0.006	0.032	0.199	0.199	-.384; .396	.004	Negligible
Negative anticipated emotions → Problem-focused coping	0.078	0.440	0.177	0.177	-.269; .425	.037	Small
Negative anticipated emotions → External success	0.110	0.380	0.290	0.290	-.458; .678	.015	Very small
Positive anticipated emotions → Planning	-0.034	0.169	0.202	0.202	-.430; .362	.042	Small
Positive anticipated emotions → Problem-focused coping	0.225	1.23	0.183	0.183	-.134; .584	.067	Small
Positive anticipated emotions → External success	-0.111	0.445	0.249	0.249	-.599; .377	.009	Negligible
Mastery approach goal orientation → Negative anticipated emotions	-0.127	0.602	0.210	0.210	-.539; .285	-.057	Small
Mastery approach goal orientation → Planning	0.401*	2.05	0.196	0.196	.017; .785	.208	Medium
Mastery approach goal orientation → Positive anticipated emotions	-0.275	1.49	0.185	0.185	-.638; .092	.079	Small
Mastery Approach goal orientation → Problem-focused coping	0.048	0.320	0.150	0.150	-.246; .342	.005	Negligible
Mastery Approach goal orientation → External success	-0.082	0.260	0.315	0.315	-.699; .535	-.002	Negligible
Performance approach goal orientation → Negative anticipated emotions	0.162	0.719	0.225	0.225	-.279; .603	.024	Small
Performance approach goal orientation → Planning	0.476*	2.08	0.229	0.229	.027; .925	.363	Large
Performance approach goal orientation → Positive anticipated emotions	0.010	0.035	0.291	0.291	-.560; .580	.001	Negligible
Performance Approach goal orientation → Problem-focused coping	0.138	0.768	0.180	0.180	-.215; .491	.030	Small
Performance Approach goal orientation → External success	0.188	0.608	0.310	0.310	-.420; .796	.020	Small
Performance Avoid goal orientation → Negative anticipated emotions	-0.147	0.483	0.304	0.304	-.743; .449	-.015	Very small
Performance Avoid goal orientation → Planning	-0.601*	1.92	0.314	0.314	-1.22; .014	-.083	Small
Performance Avoid goal orientation → Positive anticipated emotions	-0.364	1.33	0.275	0.275	-.903; .175	.275	Medium
Performance Avoid goal orientation → Problem-focused coping	-0.238	1.04	0.228	0.228	-.685; .209	.023	Small
Performance Avoid goal orientation → External success	0.069	0.205	0.335	0.335	-.588; .726	-.015	Very small
Reappraisal → Negative anticipated emotions	-0.083	0.313	0.265	0.265	-.602; .436	.011	Very small
Reappraisal → Positive anticipated emotions	0.452**	2.66	0.170	0.170	.119; .785	.253	Medium
Reappraisal → Mastery approach	0.160	0.799	0.200	0.200	-.232; .552	.027	Small
Reappraisal → Performance approach	0.157	0.706	0.222	0.222	-.278; .592	.026	Small

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Table A10.9.vi (cont.).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Performance avoid	0.106	0.543	0.196	0.196	-.278; .490	.026	Small
Reappraisal → Planning	0.162	0.850	0.191	0.191	-.212; .536	.035	Small
Reappraisal → Problem-focused coping	0.596***	3.40	0.175	0.175	.253; .939	.461	Large
Reappraisal → External success	-0.140	0.367	0.382	0.382	-.889; .609	-.003	Negligible
Suppression → Negative anticipated emotions	0.203	0.465	0.437	0.437	-.654; 1.06	.027	Small
Suppression → Positive anticipated emotions	0.135	0.708	0.190	0.190	-.237; .507	-.001	Negligible
Suppression → Mastery approach	0.344	1.60	0.215	0.215	-.077; .765	.127	Small-medium
Suppression → Performance approach	0.124	0.520	0.239	0.239	-.344; .592	.015	Very small
Suppression → Performance avoid	-0.582*	1.65	0.352	0.352	-1.27; .108	.651	Large
Suppression → Planning	-0.265	0.972	0.272	0.272	-.798; .268	.044	Small
Suppression → Problem-focused coping	-0.146	0.670	0.218	0.218	-.573; .281	.035	Small
Suppression → External success	-0.075	0.238	0.315	0.315	-.692; .542	-.002	Negligible

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

The final stage of the assessment of the structural model necessitates the investigation of the significance of the indirect paths. The bootstrap estimations and significance of the single indirect effects can be found in Table A10.9.vii and viii, via two sequential mediators in Table A10.9.ix and the total indirect effects can be found in Table A10.9.x. These were based on the fully specified model in order to control for any direct effects that the variables may be having (i.e. to control for the c' paths). Only the direct effects pertaining to external success were calculated as all others had already been investigated. No indirect effects were found to be significant.

Table A10.9.vii. Test of the indirect effects of reappraisal and suppression on external success.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → positive anticipated emotions → external success	-.050	-.069	.125	-.401	-.35; .15
Reappraisal → negative anticipated emotions → external success	-.009	-.013	.103	-.089	-.27; .19
Reappraisal → problem-focused coping → external success	.072	.121	.249	.288	-.34; .69
Reappraisal → planning → external success	.017	.007	.063	.270	-.12; .15
Suppression → positive anticipated emotions → external success	-.001	-.016	.060	-.016	-.15; .10
Suppression → negative anticipated emotions → external success	.022	.005	.136	.164	-.26; .32
Suppression → problem-focused coping → external success	-.018	-.010	.093	-.190	-.23; .18
Suppression → planning → external success	-.028	-.034	.135	-.206	-.34; .23

* $p < .05$, ** $p < .01$; *** $p < .001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

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Table A10.9.viii. Test of the indirect effects of Positive and Negative Anticipated Emotions on External Success

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Positive anticipated emotions → problem-focused coping → external success	.027	.036	.108	.250	-.16; .29
Positive anticipated emotions → planning → external success	-.004	.001	.062	-.006	-.13; .14
Negative anticipated emotions → problem-focused coping → external success	.009	.020	.080	.113	-.12; .21
Negative anticipated emotions → planning → external success	.001	-.012	.070	.014	-.18; .12

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

Table A10.9.ix. Test of the indirect effects of Reappraisal and Suppression via two sequential mediators on External Success

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → positive anticipated emotions → problem-focused coping → external success	.012	.016	.052	.231	-.08; .14
Reappraisal → negative anticipated emotions → problem-focused coping → external success	-.001	-.004	.027	-.037	-.07; .04
Reappraisal → positive anticipated emotions → planning → external success	-.002	.000	.030	-.067	-.06; .07
Reappraisal → negative anticipated emotions → planning → external success	.000	.002	.023	.000	-.04; .06
Suppression → positive anticipated emotions → problem-focused coping → external success	.004	.005	.026	.154	-.04; .07
Suppression → negative anticipated emotions → problem-focused coping → external success	.002	.001	.038	.053	-.07; .08
Suppression → positive anticipated emotions → planning → external success	-.001	.001	.014	-.071	-.03; .03
Suppression → negative anticipated emotions → planning → external success	.000	.002	.033	.000	-.06; .08

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

Finally, the total indirect effects were calculated across each sequential phase of the model (see Table A11.8.xi). None of the total indirect effects reached significance.

Table A10.9.x. Test of total indirect effects.

Total Indirect effect (Σab - c')	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → External Success	.077	.070	.344	.224	-.59; .77
Suppression → External Success	-.002	.062	.413	-.005	-.71; .89
Anticipated positive emotions → External success	.024	.037	.130	.184	-.20; .31
Anticipated negative emotions → External success	.009	.010	.143	.063	-.22; .28

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

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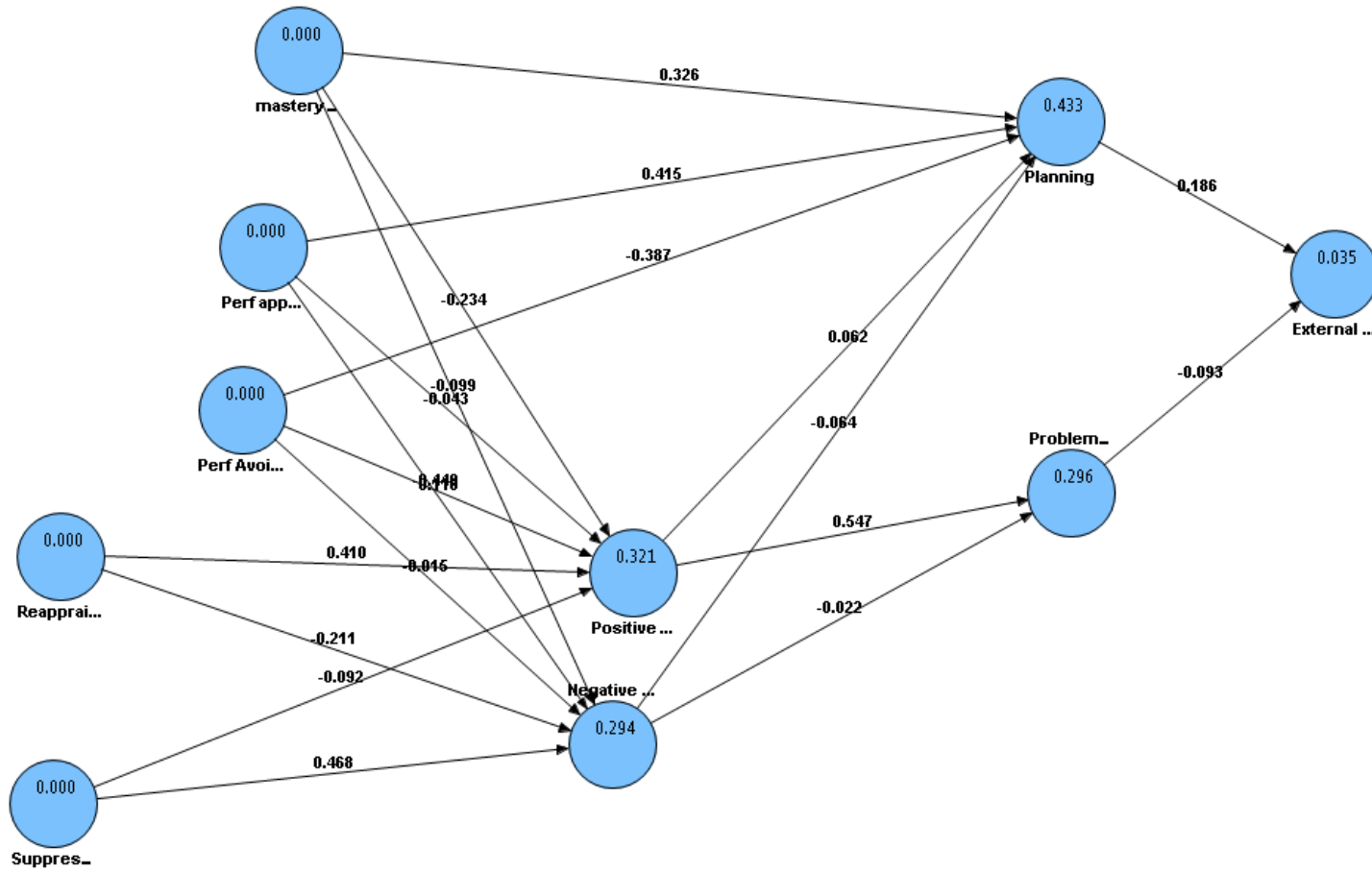


Figure A10.9.iii. Original PLS output for model investigating the direct effects of Emotion variables and Cognition (with planning) on External Success.

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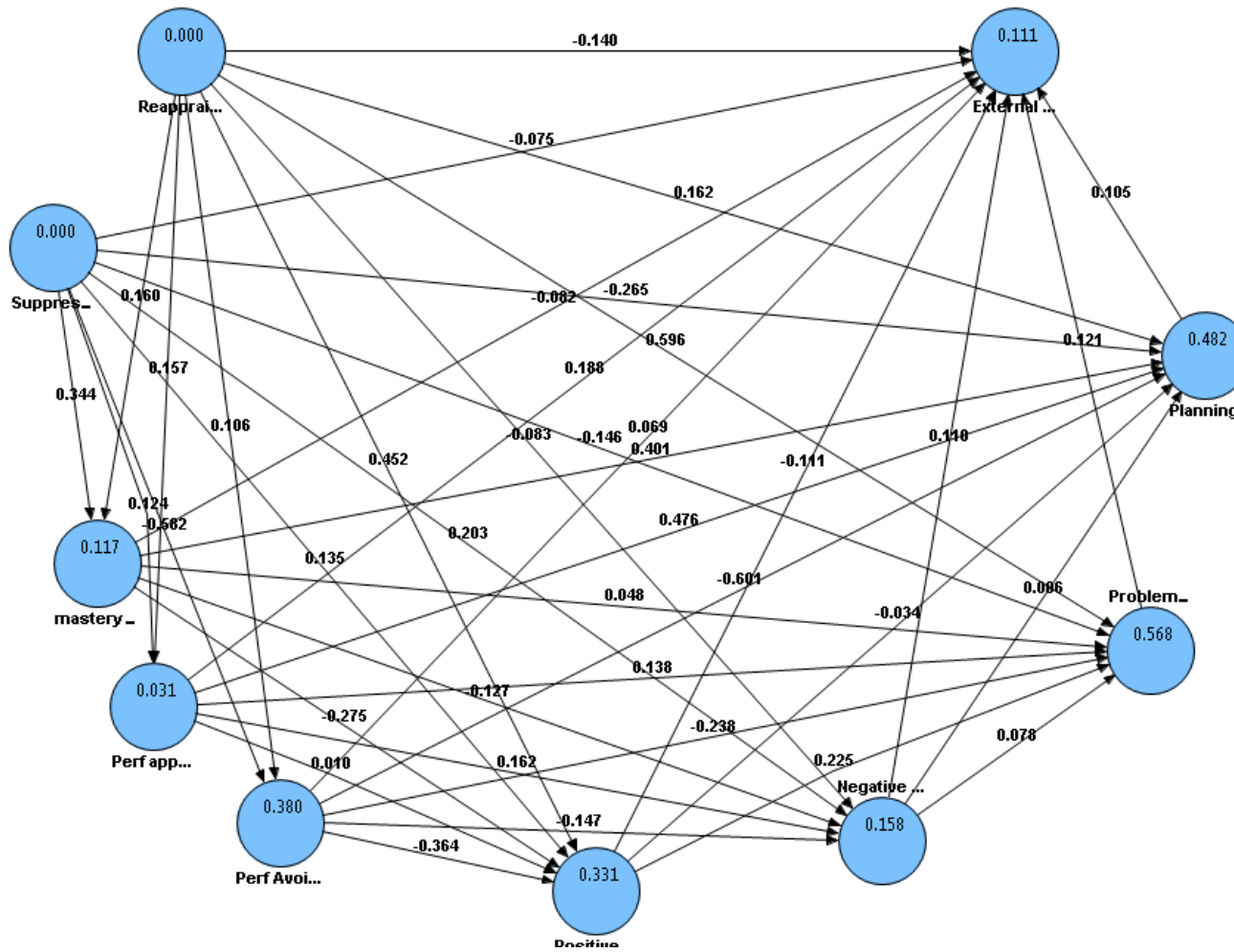


Figure A10.9.iii. Original PLS output for fully specified model investigating the effects of Emotion variables and Cognition (with planning) on External Success.

Appendix 10.10: PLS output for model investigating the emotional variables, cognitive variables with goal-setting and actions, self-perceptions of success and objective success.

Table A10.10i Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Reappraisal	Reap1	0.682	0.19	0.807	0.414
	Reap2	0.627	0.165		
	Reap3	0.754	0.391		
	Reap4	0.597	0.351		
	Reap5	0.666	0.257		
	Reap6	0.509	0.178		
Suppression	Supp1	0.285	-0.063	0.643	0.357
	Supp2	0.281	-0.128		
	Supp3	0.748	0.613		
	Supp4	0.841	0.709		
Positive anticipated emotions	Delight	0.874	0.266	0.903	0.615
	Excitement	0.805	0.265		
	Gladness	0.857	0.223		
	Happiness	0.882	0.197		
	Pride	0.701	0.175		
Negative anticipated emotions	Satisfaction	0.527	0.126	0.921	0.541
	Anger	0.735	0.147		
	Depression	0.784	0.199		
	Disappointment	0.744	0.173		
	Discomfort	0.797	0.124		
	Fear	0.740	0.169		
	Frustration	0.673	0.054		
	Guilt	0.756	0.103		
	Sadness	0.643	0.113		
	Shame	0.655	0.081		
Problem-Focused Coping	Worry	0.810	0.177	0.832	0.516
	ActiveCope	0.883	0.372		
	InstSocSupp	0.562	0.231		
	PlanCope	0.809	0.323		
	ResCope	0.387	0.015		
Mastery Approach	SupprCompAct	0.825	0.333	0.773	0.642
	G1MAGO	0.958	0.851		
Performance Approach	G2MAGO	0.604	0.305	0.669	0.510
	G1PAGO	0.578	0.560		
Performance Avoid	G2PAGO	0.829	0.816	0.630	0.476
	G1PAvGO	0.837	0.867		
Goal-difficulty	G2PAvGO	0.501	0.548	0.854	0.599
	G1DIffI	0.784	0.338		
	G1DIffS	0.593	0.161		
	G2DIffI	0.865	0.402		
Goal-specificity	G2DIffS	0.825	0.355	0.815	0.688
	G1Spec	0.847	0.632		
	G2Spec	0.811	0.573		
Actions	G1Actions	0.850	0.666	0.798	0.664
	G2Actions	0.778	0.558		
Objective Success	ObjSucc	1.00	1.00	1.00	1.00
Self-Perceptions of Success	SelfSucc1	0.811	0.362	0.840	0.637
	SelfSucc2	0.773	0.399		
	SelfSucc3	0.810	0.491		

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Table A10.10ii Average Variance Extracted by constructs and correlations between constructs to assess Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1. Actions	0.815												
2. Goal-difficulty	0.473	0.774											
3. Goal-specificity	0.658	0.357	0.829										
4. Negative anticipated emotions	-0.020	-0.060	-0.068	0.736									
5. Objective Success	0.242	0.146	0.060	0.052	1.000								
6. Performance Avoid	-0.234	-0.302	-0.148	0.235	-0.124	0.690							
7. Performance approach	0.350	0.173	0.204	0.041	0.115	-0.223	0.714						
8. Positive anticipated emotions	0.083	0.071	0.075	0.192	-0.007	-0.125	0.089	0.784					
9. Problem-focused coping	0.217	0.128	0.044	0.008	0.123	0.034	0.211	0.410	0.718				
10. Reappraisal	0.112	0.098	-0.032	-0.104	0.009	-0.066	0.095	0.316	0.498	0.643			
11. Self-perceptions of success	0.264	0.07	0.076	0.135	0.276	-0.106	0.169	0.047	0.237	-0.073	0.798		
12. Suppression	-0.043	-0.132	0.015	0.377	0.081	0.04	0.017	-0.067	0.038	-0.023	-0.088	0.597	
13. Mastery approach	0.047	0.233	0.174	-0.211	-0.292	-0.074	-0.153	-0.183	-0.129	0.085	-0.148	-0.165	0.801

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.10.iii Cross-loadings for measurement model

	Actions	Goal-difficulty	Goal-specificity	Negative antic. emotions	Objective Success	Perf. Avoid	Perf approach	Positive antic. emotions	Problem-focused coping	Reappraisal	Self-percept success	Suppression	mastery approach
G1Action	0.850	0.417	0.617	-0.065	0.104	-0.177	0.294	0.039	0.280	0.183	0.202	-0.123	0.140
G2Action	0.778	0.350	0.444	0.043	0.310	-0.208	0.276	0.102	0.055	-0.018	0.232	0.071	-0.083
G1DiffI	0.380	0.784	0.314	-0.184	-0.001	-0.179	0.138	0.033	0.112	-0.016	0.060	-0.278	0.253
G1DiffS	0.142	0.593	0.086	-0.080	-0.026	-0.199	-0.006	0.192	0.028	0.117	-0.072	-0.229	0.077
G2DiffI	0.445	0.865	0.366	0.045	0.157	-0.242	0.186	0.088	0.150	0.088	0.107	0.005	0.227
G2DiffS	0.403	0.825	0.254	-0.008	0.246	-0.316	0.149	-0.019	0.073	0.139	0.052	-0.011	0.123
G1Spec	0.561	0.311	0.847	-0.126	0.075	-0.135	0.171	0.019	-0.069	-0.132	-0.039	-0.120	0.199
G2Spec	0.531	0.280	0.811	0.020	0.023	-0.108	0.169	0.110	0.152	0.089	0.177	0.159	0.084
Anger	0.030	-0.143	-0.047	0.735	0.015	0.081	0.121	0.292	0.152	-0.161	0.229	0.289	-0.124
Depression	-0.167	-0.054	-0.158	0.784	-0.058	0.239	0.081	0.224	0.042	-0.007	0.021	0.359	-0.239
Disappoint	-0.113	-0.123	-0.120	0.744	0.072	0.089	-0.047	-0.045	-0.096	-0.264	0.074	0.362	-0.175
Discomfort	0.045	0.012	0.050	0.797	-0.098	0.236	0.040	0.168	-0.031	-0.070	-0.040	0.221	-0.067
Fear	0.046	-0.027	-0.028	0.740	0.090	0.352	0.024	0.028	-0.019	0.091	0.197	0.300	-0.106
Frustration	0.133	0.013	0.134	0.673	0.118	-0.122	0.056	0.147	-0.097	-0.31	0.227	0.168	-0.116
Guilt	0.106	-0.004	0.010	0.756	0.079	0.051	0.101	0.358	-0.029	-0.004	0.163	0.205	-0.237
Sadness	-0.067	-0.081	-0.111	0.643	0.025	0.215	-0.053	0.235	0.158	0.008	0.191	0.172	-0.107
Shame	0.030	0.162	-0.104	0.655	0.095	0.040	-0.021	0.341	0.151	0.148	0.084	0.219	-0.189
Worry	0.013	-0.045	0.014	0.810	0.117	0.256	0.004	-0.069	-0.120	-0.198	-0.010	0.310	-0.173
ObjSucc5	0.242	0.146	0.060	0.052	1.00	-0.124	0.115	-0.007	0.123	0.009	0.276	0.081	-0.292
G1PAvGO	-0.239	-0.295	-0.099	0.077	-0.140	0.837	-0.158	-0.237	-0.001	0.020	-0.238	-0.003	-0.059
G2PAvGO	-0.049	-0.084	-0.113	0.307	-0.005	0.501	-0.157	0.147	0.063	-0.153	0.184	0.076	-0.042
G1PAGO	0.085	0.087	0.134	0.027	0.034	-0.341	0.578	0.034	0.102	0.126	0.121	-0.050	-0.056
G2PAGO	0.370	0.153	0.159	0.032	0.117	-0.040	0.829	0.086	0.189	0.030	0.124	0.055	-0.15
Delight	0.146	0.183	0.131	0.094	0.057	-0.196	0.239	0.874	0.395	0.278	0.086	-0.050	-0.129

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Table A10.10.iii (cont.)

	Actions	Goal-difficulty	Goal-specificity	Negative antic. emotions	Objective Success	Perf. Avoid	Perf approach	Positive antic. emotions	Problem-focused coping	Reappraisal	Self-percept success	Suppression	mastery approach
Excitement	0.120	0.157	0.211	0.115	0.002	-0.234	0.226	0.805	0.417	0.179	0.115	-0.134	-0.151
Gladness	0.047	0.100	0.035	0.141	0.003	0.060	-0.026	0.857	0.338	0.313	-0.032	-0.038	-0.138
Happiness	0.018	-0.012	-0.048	0.160	-0.077	-0.027	0.059	0.882	0.275	0.287	0.001	-0.062	-0.153
Pride	-0.051	-0.095	-0.066	0.284	-0.058	-0.143	-0.121	0.701	0.225	0.210	0.060	0.019	-0.234
Satisfaction	0.057	-0.179	-0.020	0.187	0.015	0.045	-0.152	0.527	0.200	0.252	-0.082	-0.001	-0.055
ActiveCope	0.205	0.126	-0.001	0.097	0.135	0.064	0.205	0.405	0.883	0.435	0.172	0.035	-0.160
InstSocSupp	0.266	0.300	0.110	-0.084	0.181	-0.159	0.189	0.177	0.562	0.384	0.016	0.063	0.016
PlanCope	0.109	-0.032	0.001	-0.128	-0.061	0.086	0.105	0.323	0.809	0.436	0.289	-0.096	-0.048
ResCope	0.020	0.010	0.021	-0.118	0.068	-0.163	0.026	-0.046	0.387	0.311	0.036	0.148	0.014
SupprCompAct	0.132	0.067	0.055	0.102	0.149	0.064	0.171	0.343	0.825	0.305	0.225	0.118	-0.172
Reapp1	-0.017	0.075	-0.102	-0.048	0.088	-0.136	0.086	0.137	0.273	0.682	0.199	-0.119	0.209
Reapp2	0.111	0.049	0.019	-0.085	-0.058	-0.064	-0.001	0.104	0.270	0.627	-0.073	0.065	0.097
Reapp3	0.123	0.189	0.096	-0.071	-0.043	-0.080	0.035	0.290	0.489	0.754	-0.123	0.046	0.025
Reapp4	0.026	0.037	-0.057	0.021	-0.045	0.037	0.120	0.287	0.348	0.597	-0.151	-0.008	0.079
Reapp5	0.115	-0.074	-0.082	-0.024	0.064	-0.029	0.080	0.198	0.154	0.666	-0.044	-0.012	-0.023
Reapp6	0.056	0.046	-0.070	-0.302	0.100	-0.024	0.015	0.044	0.270	0.509	0.075	-0.131	-0.015
SelfS1	0.158	-0.082	0.082	0.145	0.301	-0.086	0.193	0.129	0.188	-0.011	0.811	-0.054	-0.246
SelfS2	0.292	0.096	0.149	-0.010	0.271	-0.247	0.120	-0.023	0.066	-0.060	0.773	-0.088	-0.061
SelfS3	0.184	0.126	-0.026	0.176	0.120	0.048	0.104	0.019	0.290	-0.093	0.810	-0.067	-0.071
Suppr1	-0.086	-0.067	-0.131	-0.038	0.003	0.083	-0.216	-0.061	0.052	0.016	-0.146	0.285	-0.139
Suppr2	0.089	0.155	0.124	-0.078	0.122	-0.099	-0.114	-0.130	0.061	0.083	-0.193	0.281	-0.020
Suppr3	-0.106	-0.086	0.059	0.269	-0.040	0.123	-0.026	0.019	0.104	-0.004	-0.275	0.748	-0.038
Suppr4	0.040	-0.091	-0.019	0.282	0.171	-0.061	0.007	-0.140	-0.020	-0.013	0.066	0.841	-0.215
G1MAGO	0.113	0.262	0.187	-0.191	-0.242	-0.060	-0.091	-0.192	-0.124	0.063	-0.090	-0.138	0.958
G2MAGO	-0.161	0.031	0.047	-0.158	-0.281	-0.075	-0.249	-0.066	-0.077	0.101	-0.236	-0.154	0.604

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Table A10.10.iv Estimation of the structural model (emotional variables, cognitive variables with goal-setting and actions, objective success and self-perceptions of success).

	Direct effects only model				Direct and indirect effects model			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Positive anticipated emotions	.167	Medium	.643	.120	.239	Medium-Large	.641	.068
Negative anticipated emotions	.219	Medium-large	.526	.128	.092	Small-medium	.526	.011
Problem-focused coping	.173	Medium	.572	.098	.375	Large	.576	.311
Mastery Approach	N/A	N/A	N/A	N/A	.035	Small	.711	-.016
Performance Approach	N/A	N/A	N/A	N/A	.031	Small	.280	.041
Performance Avoid	N/A	N/A	N/A	N/A	.060	Small	.800	.030
Goal-difficulty	.164	Medium	.638	.159	.146	Medium	.639	.062
Goal-specificity	.100	Medium	.740	.001	.103	Medium	.740	.009
Actions	.523	Large	.487	.081	.591	Large	.491	.295
Objective success	.064	Small	1.00	.200	.202	Medium-Large	1.00	.180
Self-perceptions of success	.104	Medium	.650	.066	.283	Large	.674	.160

Table A10.10.v Statistical results for Path Coefficients in direct effects only model (emotional variables, cognitive variables with goal-setting and actions, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Actions → Objective success	0.226*	1.89	0.119	0.119	-.007; .459	.054	Small
Actions → Self-perceptions of success	0.224	1.61	0.139	0.139	-.048; .496	.025	Small
Problem-focused coping → Objective success	0.074	0.574	0.129	0.129	-.179; .327	.003	Negligible
Problem-focused coping → Self-perceptions of success	0.188	1.10	0.171	0.171	-.147; .523	.027	Small
Problem focused coping → actions	0.160	1.56	0.103	0.103	-.042; .362	.057	Small
Goal-difficulty → Actions	0.252**	2.62	0.096	0.096	.064; .440	.109	Small-medium
Goal-specificity → Actions	0.561***	7.13	0.079	0.079	.406; .716	.587	Large
Negative anticipated emotions → Goal-difficulty	0.034	0.204	0.166	0.166	-.291; .359	-.007	Negligible
Negative anticipated emotions → Goal-specificity	-0.035	0.213	0.164	0.164	-.356; .286	.007	Negligible
Negative anticipated emotions → Problem-focused coping	-0.074	0.456	0.161	0.161	-.039; .242	.010	Very small
Positive anticipated emotions → Goal-difficulty	0.067	0.463	0.144	0.144	-.215; .349	.024	Small
Positive anticipated emotions → Goal-specificity	0.093	0.699	0.133	0.133	-.168; .261	.007	Negligible
Positive anticipated emotions → Problem-focused coping	0.424**	2.62	0.162	0.162	.106; .742	.209	Medium
Mastery approach goal orientation → Negative anticipated emotions	-0.120	0.987	0.121	0.121	-.357; .117	.012	Very small
Mastery approach goal orientation → Goal-difficulty	0.257*	1.74	0.147	0.147	-.031; .545	.069	Small
Mastery approach goal orientation → Goal-specificity	0.212	1.47	0.144	0.144	-.070; .494	.049	Small
Mastery approach goal orientation → Positive anticipated emotions	-0.235*	1.82	0.129	0.129	-.488; .018	.062	Small
Performance approach goal orientation → Negative anticipated emotions	0.074	0.536	0.138	0.138	-.196; .344	.008	Negligible

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Performance approach goal orientation → Goal-difficulty	0.150	1.05	0.143	0.143	-.130; .430	.025	Small
Performance approach goal orientation → Goal-specificity	0.216	1.46	0.148	0.148	-.074; .506	.052	Small
Performance approach goal orientation → Positive anticipated emotions	-0.003	0.017	0.183	0.183	-.362; .356	-.001	Negligible
Performance Avoid goal orientation → Negative anticipated emotions	0.224	1.09	0.205	0.205	-.178; .626	.041	Small
Performance Avoid goal orientation → Goal-difficulty	-0.249	1.42	0.175	0.175	-.592; .094	.060	Small
Performance Avoid goal orientation → Goal-specificity	-0.064	0.384	0.166	0.166	-.389; .261	.006	Negligible
Performance Avoid goal orientation → Positive anticipated emotions	-0.118	0.454	0.260	0.260	-.628; .392	.023	Small
Reappraisal → Negative anticipated emotions	-0.078	0.315	0.246	0.246	-.560; .404	.015	Very small
Reappraisal → Positive anticipated emotions	0.326	1.49	0.219	0.219	-.103; .755	.103	Small-medium
Suppression → Negative anticipated emotions	0.345	1.12	0.307	0.307	-.257; .947	.099	Small
Suppression → Positive anticipated emotions	-0.093	0.548	0.170	0.170	-.426; .240	.001	Negligible

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table A10.10.vi Statistical results for Path Coefficients in fully specified model (emotional variables, cognitive variables with goal-setting and actions, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Actions → Objective Success	0.195	0.902	0.216	0.216	-.218; .618	.025	Small
Actions → Self-perceptions of success	0.199	0.908	0.219	0.219	-.228; .626	.045	Small
Goal-difficulty → Objective success	0.120	0.642	0.188	0.188	-.248; .488	.025	Small
Goal-difficulty → Self-perceptions of success	-0.061	0.346	0.177	0.177	-.408; .286	.015	Very small
Goal-difficulty → Actions	0.218*	1.91	0.114	0.114	-.005; .441	.093	Small
Goal difficulty → problem-focused coping	0.059	0.438	0.134	0.134	-.204; .322	.005	Negligible
Goal-specificity → Objective success	-0.046	0.2634	0.175	0.175	-.389; .297	-.001	Negligible
Goal-specificity → Self-perceptions of success	-0.002	0.009	0.202	0.202	-.398; .394	-.003	Negligible
Goal-specificity → Actions	0.567***	5.51	0.103	0.103	.365; .769	.643	Large
Goal specificity → problem-focused coping	0.006	0.047	0.133	0.133	-.255; .267	.000	Negligible
Problem-focused coping → Objective success	0.093	0.571	0.163	0.163	-.226; .412	.010	Very small
Problem-focused coping → Self-perceptions of success	0.297*	1.68	0.177	0.177	-.050; .644	.081	Small
Problem-focused coping → Actions	0.094	0.769	0.122	0.122	-.145; .333	-.007	Negligible
Negative anticipated emotions → Goal-difficulty	-0.031	0.177	0.174	0.174	-.372; .310	-.012	Negligible
Negative anticipated emotions → Goal-specificity	-0.032	0.184	0.175	0.175	-.375; .311	.002	Negligible
Negative anticipated emotions → Actions	0.048	0.432	0.112	0.112	-.172; .268	.012	Very small
Negative anticipated emotions → Problem-focused coping	-0.032	0.227	0.140	0.140	-.306; .242	-.003	Negligible
Negative anticipated emotions → Objective success	0.040	0.263	0.151	0.151	-.256; .336	-.001	Negligible
Negative anticipated emotions → Self-perceptions of success	0.141	0.869	0.163	0.163	-.178; .460	.017	Very small
Positive anticipated emotions → Goal-difficulty	0.010	0.060	0.168	0.168	-.319; .339	-.001	Negligible

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Positive anticipated emotions → Goal-specificity	0.147	0.959	0.154	0.154	-.155; .449	.019	Very small
Positive anticipated emotions → Actions	-0.135	0.955	0.141	0.141	-.411; .141	.034	Small
Positive anticipated emotions → Problem-focused coping	0.225	1.50	0.150	0.150	-.069; .519	.056	Small
Positive anticipated emotions → Objective success	-0.163	0.900	0.182	0.182	-.520; .194	.021	Small
Positive anticipated emotions → Self-perceptions of success	-0.196	1.21	0.162	0.162	-.514; .122	.031	Small
Mastery approach goal orientation → Positive anticipated emotions	-0.226*	1.71	0.132	0.132	-.485; .033	.060	Small
Mastery approach goal orientation → Negative anticipated emotions	-0.201	1.40	0.144	0.144	-.081; .483	.004	Negligible
Mastery approach goal orientation → Goal-difficulty	0.230	1.42	0.162	0.162	-.088; .548	.035	Small
Mastery approach goal orientation → Goal-specificity	0.247	1.62	0.153	0.153	-.053; .547	.059	Small
Mastery approach goal orientation → Actions	-0.129	0.997	0.130	0.130	-.384; .126	.090	Small
Mastery Approach goal orientation → Problem-focused coping	-0.088	0.691	0.128	0.128	-.339; .163	.008	Negligible
Mastery Approach goal orientation → Objective success	-0.350*	2.43	0.144	0.144	-.632; -.068	.117	Small
Mastery Approach goal orientation → Self-perceptions of success	-0.199	1.23	0.162	0.162	-.517; .119	.038	Small
Performance approach goal orientation → Positive anticipated emotions	0.003	0.018	0.189	0.189	-.367; .373	-.003	Negligible
Performance approach goal orientation → Negative anticipated emotions	0.014	0.092	0.151	0.151	-.282; .310	.000	Negligible
Performance approach goal orientation → Goal-difficulty	0.238	1.58	0.151	0.151	-.058; .534	.057	Small
Performance approach goal orientation → Goal-specificity	0.264*	1.69	0.156	0.156	-.042; .570	.069	Small
Performance approach goal orientation → Actions	0.166	1.08	0.153	0.153	-.155; .445	.051	Small
Performance Approach goal orientation → Problem-focused coping	0.145	0.977	0.149	0.149	-.147; .437	.027	Small
Performance Approach goal orientation → Objective success	-0.044	0.261	0.169	0.169	-.375; .287	.001	Negligible
Performance Approach goal orientation → Self-perceptions of success	-0.013	0.080	0.163	0.163	-.332; .306	-.007	Negligible
Performance Avoid goal orientation → Positive anticipated emotions	-0.310	1.63	0.190	0.190	-.682; .062	.125	Small
Performance Avoid goal orientation → Negative anticipated emotions	-0.160	0.668	0.240	0.240	-.630; .310	-.003	Negligible
Performance Avoid goal orientation → Goal-difficulty	-0.237	1.11	0.215	0.215	-.658; .184	.059	Small
Performance Avoid goal orientation → Goal-specificity	0.011	0.058	0.185	0.185	-.354; .374	-.006	Negligible
Performance Avoid goal orientation → Actions	-0.161	1.04	0.155	0.155	-.465; .143	.042	Small
Performance Avoid goal orientation → Problem-focused coping	-0.032	0.178	0.177	0.177	-.379; .315	-.005	Negligible
Performance Avoid goal orientation → Objective success	-0.117	0.618	0.189	0.189	-.487; .253	.016	Very small
Performance Avoid goal orientation → Self-perceptions of success	-0.242	1.42	0.170	0.170	-.575; .071	.053	Small
Reappraisal → Negative anticipated emotions	-0.129	0.670	0.193	0.193	-.507; .249	.025	Small
Reappraisal → Positive anticipated emotions	0.356*	2.07	0.172	0.172	.019; .693	.148	Medium
Reappraisal → Mastery approach	0.114	0.833	0.136	0.136	-.153; .381	.011	Very small
Reappraisal → Performance approach	0.078	0.435	0.179	0.179	-.273; .429	.009	Very small
Reappraisal → Performance avoid	0.108	0.567	0.190	0.190	-.264; .480	.027	Small
Reappraisal → Goal-difficulty	0.086	0.521	0.165	0.165	-.237; .409	.000	Negligible
Reappraisal → Goal-specificity	-0.117	0.715	0.164	0.164	-.438; .204	.009	Negligible

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Reappraisal → Actions	0.115	0.796	0.144	0.144	-.167; .397	.010	Very small
Reappraisal → Problem-focused coping	0.442**	2.88	0.154	0.154	.140; .744	.200	Medium
Reappraisal → Objective success	0.029	0.146	0.200	0.200	-.363; .421	-.003	Negligible
Reappraisal → Self-perceptions of success	-0.082	0.411	0.200	0.200	-.474; .310	-.006	Negligible
Suppression → Negative anticipated emotions	0.013	0.051	0.262	0.262	-.501; .527	-.008	Negligible
Suppression → Positive anticipated emotions	-0.097	0.647	0.150	0.150	-.391; .197	.022	Small
Suppression → Mastery approach	-0.153	0.962	0.159	0.159	-.465; .159	.025	Small
Suppression → Performance approach	-0.161	0.941	0.171	0.171	-.496; .174	.027	Small
Suppression → Performance avoid	0.215	1.07	0.202	0.202	-.181; .611	.057	Small
Suppression → Goal-difficulty	0.127	0.616	0.207	0.207	-.279; .533	.001	Negligible
Suppression → Goal-specificity	0.095	0.465	0.205	0.205	-.307; .497	-.008	Negligible
Suppression → Actions	0.000	0.004	0.121	0.121	-.237; .237	-.002	Negligible
Suppression → Problem-focused coping	0.112	0.779	0.144	0.144	-.170; .394	.013	Very small
Suppression → Objective success	0.022	0.123	0.180	0.180	-.331; .375	-.003	Negligible
Suppression → self-perceptions of success	-0.215	1.17	0.184	0.184	-.576; .146	.059	Small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{cv} * SE$
 where $t_{cv} = 1.96$ for two-tailed 95% Confidence Interval (Hinkle, Wiersma & Jurs, 1998)

Table A10.10.vii Test of the indirect effects of reappraisal and suppression.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → positive anticipated emotions → Goal-difficulty	.004	.005	.067	.059	-.14; .14
Reappraisal → positive anticipated emotions → Goal-specificity	.052	.053	.066	.788	-.06; .20
Reappraisal → positive anticipated emotions → Actions	-.048	-.050	.060	-.800	-.19; .05
Reappraisal → negative anticipated emotions → Goal-difficulty	.004	.005	.039	.103	-.07; .10
Reappraisal → negative anticipated emotions → Goal-specificity	.004	-.003	.040	.100	-.09; .08
Reappraisal → negative anticipated emotions → Actions	-.006	-.005	.026	-.231	-.07; .05
Reappraisal → Problem-focused coping → Actions	.042	.054	.062	.677	-.06; .19
Reappraisal → Goal-difficulty → Actions	.019	.016	.038	.500	-.06; .10
Reappraisal → Goal-specificity → Actions	-.066	-.060	.092	-.717	-.26; .12
Suppression → positive anticipated emotions → Goal-difficulty	-.001	-.001	.031	-.032	-.06; .06
Suppression → positive anticipated emotions → Goal-specificity	-.014	-.012	.034	-.412	-.09; .05
Suppression → positive anticipated emotions → Actions	.013	.012	.031	.419	-.05; .08
Suppression → negative anticipated emotions → Goal-difficulty	.000	.000	.049	.000	-.11; .10
Suppression → negative anticipated emotions → Goal-specificity	.000	-.013	.051	.000	-.14; .08
Suppression → negative anticipated emotions → Actions	.001	.003	.033	.030	-.06; .08
Suppression → Problem-focused coping → Actions	.011	.011	.027	.407	-.04; .08
Suppression → Goal-difficulty → Actions	.028	.007	.045	.622	-.09; .10
Suppression → Goal-specificity → Actions	.054	.044	.118	.458	-.19; .27

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Reappraisal → Actions → objective success	.022	.023	.047	.568	-.06; .14
Reappraisal → Actions → self-perceptions of success	.023	.023	.047	.489	-.06; .14
Reappraisal → Goal-difficulty → objective success	.010	.021	.044	.227	-.04; .14
Reappraisal → Goal-difficulty → self-perceptions of success	-.005	-.005	.037	-.135	-.09; .08
Reappraisal → Goal-specificity → objective success	.005	.001	.035	.143	-.08; .08
Reappraisal → Goal-specificity → self-perceptions of success	.000	.001	.041	.000	-.09; .09
Suppression → Actions → objective success	.000	-.005	.038	.000	-.09; .08
Suppression → Actions → self-perceptions of success	.000	-.005	.038	.000	-.09; .07
Suppression → Goal-difficulty → objective success	.015	.013	.047	.319	-.07; .13
Suppression → Goal-difficulty → self-perceptions of success	-.008	-.004	.042	-.190	-.10; .09
Suppression → Goal-specificity → objective success	-.004	-.004	.041	-.098	-.10; .08
Suppression → Goal-specificity → self-perceptions of success	.000	.006	.045	.000	-.09; .11

* p < .05, ** p < .01; *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

Table A10.10.viii Test of the indirect effects of Positive and Negative Anticipated Emotions

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Positive anticipated emotions → problem-focused coping → Actions	.021	.024	.036	.583	-.04; .11
Positive anticipated emotions → goal-difficulty → Actions	.002	.007	.039	.051	-.07; .10
Positive anticipated emotions → goal-specificity → Actions	.083	.076	.087	.954	-.10; .26
Positive anticipated emotions → Actions → objective success	-.026	-.028	.050	-.520	-.15; .05
Positive anticipated emotions → Actions → self-perceptions of success	-.027	-.029	.052	-.519	-.16; .05
Positive anticipated emotions → goal-difficulty → objective success	.001	-.001	.038	.026	-.08; .08
Positive anticipated emotions → goal-difficulty → self-perceptions of success	-.001	-.002	.033	-.030	-.08; .07
Positive anticipated emotions → goal-specificity → objective success	-.007	-.005	.037	-.189	-.09; .07
Positive anticipated emotions → goal-specificity → self-perceptions of success	.000	.000	.043	.000	-.09; .09
Negative anticipated emotions → problem-focused coping → Actions	-.003	-.005	.025	-.120	-.06; .05
Negative anticipated emotions → goal difficulty → actions	-.007	.000	.039	-.179	-.09; .08
Negative anticipated emotions → goal specificity → actions	-.018	-.0163	.099	-.181	-.21; .17
Negative anticipated emotions → Actions → Objective success	.009	.007	.035	.257	-.07; .08
Negative anticipated emotions → Actions → self-perceptions of success	.010	.009	.035	.285	-.06; .09
Negative anticipated emotions → goal difficulty → Objective success	-.003	-.005	.039	-.077	-.10; .07
Negative anticipated emotions → goal difficulty → self-perceptions of success	.002	.001	.037	.054	-.08; .08
Negative anticipated emotions → Goal specificity → Objective success	.001	-.001	.034	.029	-.08; .07
Negative anticipated emotions → Goal specificity → self-perceptions of success	.000	.001	.036	.000	-.08; .08

* p < .05, ** p < .01; *** p < .001.010
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

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Table A10.10.ix Test of the indirect effects of Reappraisal and Suppression via two sequential mediators.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → positive anticipated emotions → goal-difficulty → objective success	.000	-.001	.015	.000	-.03; .03
Reappraisal → positive anticipated emotions → goal-specificity → objective success	.009	-.002	.015	.600	-.03; .03
Reappraisal → positive anticipated emotions → Actions → objective success	-.009	-.011	.021	-.429	-.07; .02
Reappraisal → positive anticipated emotions → goal-difficulty → self-perceptions of success	.000	.000	.013	.000	-.03; .03
Reappraisal → positive anticipated emotions → goal-specificity → self-perceptions of success	.000	.000	.018	.000	-.04; .04
Reappraisal → positive anticipated emotions → Actions → self-perceptions of success	-.010	-.011	.022	-.455	-.07; .02
Reappraisal → positive anticipated emotions → goal-difficulty → Actions	.001	.002	.015	.067	-.03; .04
Reappraisal → positive anticipated emotions → goal-specificity → Actions	.029	.029	.038	.763	-.03; .12
Reappraisal → positive anticipated emotions → Problem focused coping → Actions	.008	.009	.015	.533	-.02; .05
Reappraisal → negative anticipated emotions → goal-difficulty → objective success	.000	.001	.009	.000	-.01; .02
Reappraisal → negative anticipated emotions → goal-specificity → objective success	.001	.001	.008	.125	-.01; .02
Reappraisal → negative anticipated emotions → Actions → objective success	-.001	-.001	.008	-.125	-.02; .01
Reappraisal → negative anticipated emotions → goal-difficulty → self-perceptions of success	.000	-.001	.009	.000	-.02; .02
Reappraisal → negative anticipated emotions → goal-specificity → self-perceptions of success	.000	.000	.009	.000	-.02; .02
Reappraisal → negative anticipated emotions → Actions → self-perceptions of success	-.001	-.002	.009	-.111	-.02; .01
Reappraisal → negative anticipated emotions → goal-difficulty → Actions	.002	.001	.009	.222	-.02; .02
Reappraisal → negative anticipated emotions → goal-specificity → Actions	.002	-.002	.022	.091	-.05; .04
Reappraisal → negative anticipated emotions → Problem focused coping → Actions	.000	.001	.006	.000	-.01; .01
Suppression → positive anticipated emotions → goal-difficulty → objective success	.000	.000	.007	.000	-.01; .01
Suppression → positive anticipated emotions → goal-specificity → objective success	-.002	.001	.006	-.333	.01; -.01
Suppression → positive anticipated emotions → Actions → objective success	.003	.002	.010	.300	-.01; .03
Suppression → positive anticipated emotions → goal-difficulty → self-perceptions of success	.000	.000	.006	.000	-.01; .01
Suppression → positive anticipated emotions → goal-specificity → self-perceptions of success	.000	.000	.007	.000	-.02; .01
Suppression → positive anticipated emotions → Actions → self-perceptions of success	.003	.003	.010	.300	-.01; .03
Suppression → positive anticipated emotions → goal-difficulty → Actions	-.007	-.004	.007	-1.00	-.02; .01
Suppression → positive anticipated emotions → goal-specificity → Actions	-.007	-.006	.019	-.368	-.05; .03
Suppression → positive anticipated emotions → Problem focused coping → Actions	-.002	-.002	.008	-.250	-.02; .01
Suppression → negative anticipated emotions →	.006	-.001	.011	.545	-.03; .02

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goal-difficulty → objective success					
Suppression → negative anticipated emotions → goal-specificity → objective success	.000	.001	.010	.000	-.02; .02
Suppression → negative anticipated emotions → Actions → objective success	.000	.001	.010	.000	-.02; .02
Suppression → negative anticipated emotions → goal-difficulty → self-perceptions of success	.000	.000	.011	.000	-.02; .02
Suppression → negative anticipated emotions → goal-specificity → self-perceptions of success	.000	.000	.011	.000	-.02; .02
Suppression → negative anticipated emotions → Actions → self-perceptions of success	.000	.001	.010	.000	-.02; .02
Suppression → negative anticipated emotions → goal-difficulty → Actions	.000	.000	.010	.000	-.02; .02
Suppression → negative anticipated emotions → goal-specificity → Actions	.000	-.007	.029	.000	-.08; .05
Suppression → negative anticipated emotions → Problem focused coping → Actions	.000	-.001	.007	.000	-.02; .01

* p < .05, ** p < .01, *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

Table A10.10.x Test of total indirect effects.

Total Indirect effect ($\Sigma ab - c'$)	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → Objective Success	-.026	.002	.147	-.177	-.29; .30
Reappraisal → Self-perceptions of success	.037	.069	.167	.222	-.27; .38
Reappraisal → problem-focused coping	.077	.065	.119	.647	-.18; .28
Reappraisal → Goal-difficulty	.027	.035	.115	.235	-.20; .26
Reappraisal → Goal-specificity	.099	.091	.110	.900	-.13; .30
Reappraisal → Actions	-.004	.002	.158	-.025	-.31; .29
Suppression → Objective Success	.006	.073	.139	.043	-.19; .35
Suppression → Self-perceptions of success	.023	.082	.169	.136	-.23; .42
Suppression → problem-focused coping	-.046	-.042	.112	-.411	-.27; .17
Suppression → Goal-difficulty	-.126	-.097	.130	-.969	-.35; .15
Suppression → Goal-specificity	.095	-.092	.126	.754	-.32; .13
Suppression → Actions	-.018	-.019	.176	-.102	-.34; .35
Anticipated positive emotions → objective success	.010	-.136	.223	.045	-.57; .30
Anticipated positive emotions → self-perceptions of success	.061	.067	.098	.622	-.12; .27
Anticipated positive emotions → Actions	.112	.107	.113	.991	-.12; .33
Anticipated negative emotions → objective success	-.002	-.013	.075	-.027	-.17; .12
Anticipated negative emotions → self-perceptions of success	.004	-.010	.083	.048	-.17; .15
Anticipated negative emotions → Actions	-.028	-.024	.119	-.235	-.25; .20

* p < .05, ** p < .01, *** p < .001
 $t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed) (Lindley & Scott, 1984)
 $t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

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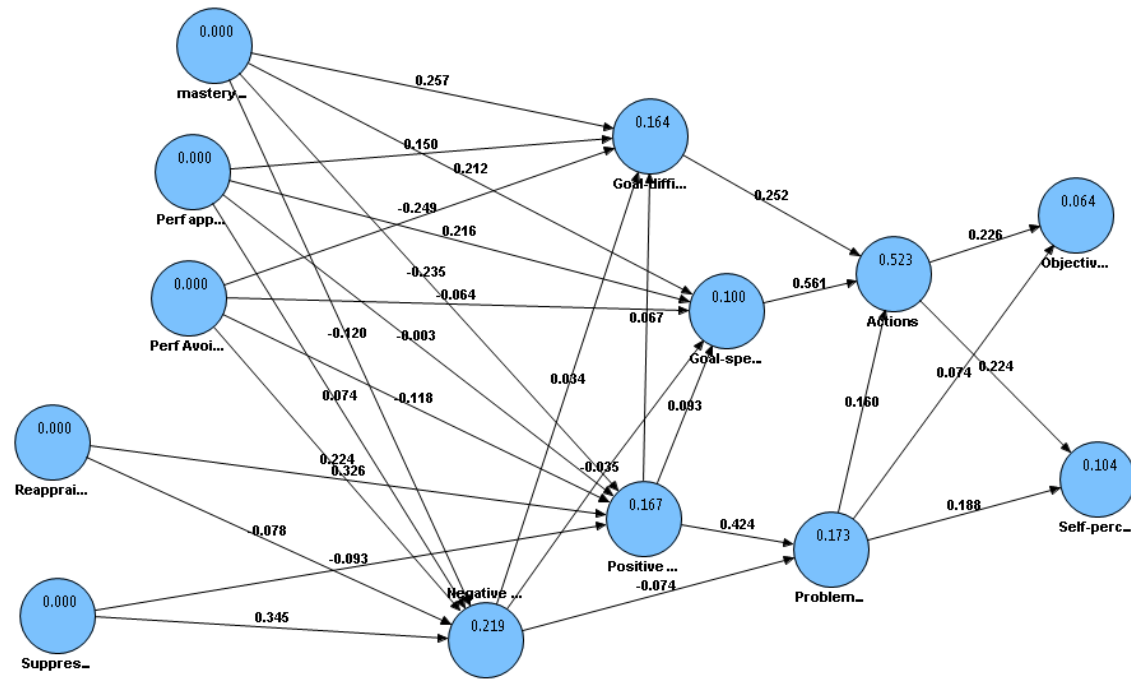


Figure A10.10.i. Original PLS output for model investigating the direct relationships between emotional variables, cognitive variables (with goal-setting and actions) and objective success and self-perceptions of success.

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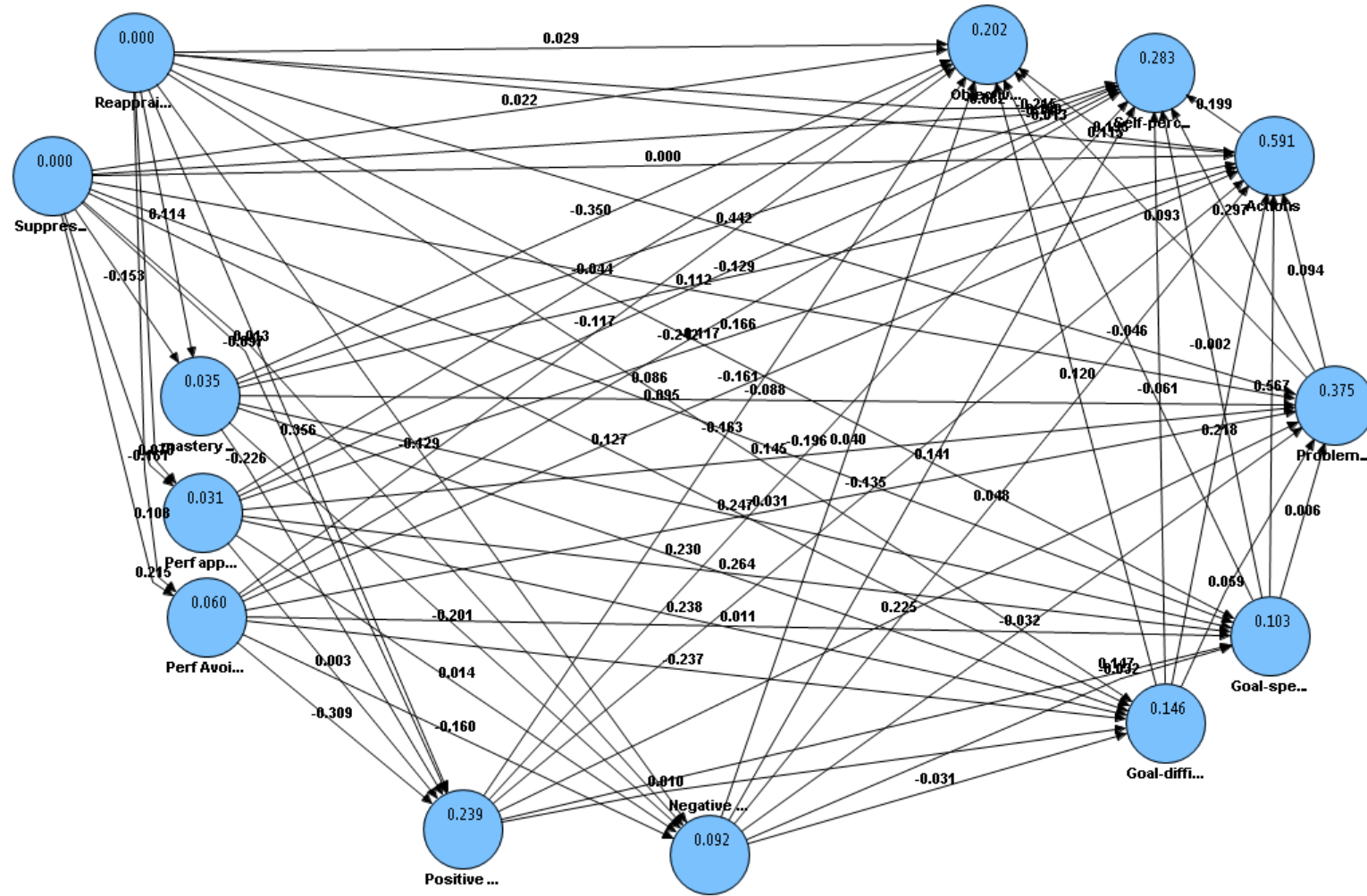


Figure A10.10.ii. Original PLS output for the fully-specified model investigating the relationships between emotional variables, cognitive variables (with goal-setting and actions) and objective success and self-perceptions of success.

Appendix 10.11: Model investigating the effects of the Emotional and Cognitive components (including goal-setting and actions) on External Success

The analysis outlined in this appendix examines the impact of the emotional components and the cognitive components (including goal-setting and actions) on external success. As such, it mirrors the analysis in section 10.7 which investigated the impact of these variables on self-perceptions of success and objective success.

The results of the measurement model presented pertain to the model as specified in Figure 10.8. The fully specified model was also calculated, but as the results of the measurement model for both versions are very similar, they are presented only once. Table A10.11.i outlines the AVE, composite reliability, and factor loadings for each latent construct. The AVE for all variables except reappraisal, suppression, negative anticipated emotions, and both performance goal orientations were below the recommended level of 0.5, although a number only marginally so. Both of the performance goals and suppression also had suboptimal composite reliability values, but all other reliabilities were above the recommended level of 0.6.

With regard to the factor loadings for the latent variables, four of the reappraisal indicators were above 0.7, with one marginally below this, and the final item at .491. Two of the suppression indicators were above 0.7, but the remaining two loaded quite poorly. However, given that the CFAs indicated that the measurement of suppression was a good fit, all indicators were retained. All of the positive anticipated emotions indicators loaded highly, with the exception of satisfaction, which was somewhat lower at .533. Six of the negative anticipated emotions indicators loaded above 0.7, three loaded above 0.6 and the final item were somewhat lower at .439. Three of the problem-focused coping indicators were above 0.7, with the other two below this. For each of the goal orientations, one of the two indicators loaded highly, but the other loaded suboptimally. Both goal specificity indicators loaded highly, as did both actions indicators. Three of the four goal difficulty indicators loaded highly, but the fourth loaded a just below 0.6. Both indicators for external success loaded highly.

Table A10.11.ii outlines the latent variable correlations. None of the correlations are higher than the square root of the AVE for each respective latent variable. Hence, the Fornell-Larcker criterion is met, and discriminant validity is evident. As a second check on discriminant validity, the cross-loadings were compared (see Table A10.11.iii). All of the indicators loaded more highly on their own latent variable, than on any other, indicating once again, the discriminant validity was evident.

Although there were a number of issues with the measurement model, the structural model was calculated in order to investigate the results of the model with external success, and to allow for comparison with the other two forms of success.

Moving to examine the structural model, Table A10.11.iv provides an overview of both versions of the model. In the model which included only the direct effects between each sequential phase, reappraisal and suppression, combined with the goal orientation variables explained 42.2% of the variance in anticipated positive emotions (a large effect), and 28.5% of the variance in anticipated negative emotions (a large effect). Goal orientations, combined with both types of anticipated emotions combined explained 17.8% of the variance in goal difficulty (a medium effect), and 18.8% of the variance in goal-specificity (a medium effect). Anticipated emotions explained 27.7% of the variance in problem-focused coping (a medium effect). Goal-setting, combined with problem-focused coping explained 54.9% of the variance in actions. Finally, problem-focused coping combined with actions explained 17.5% of the variance in external success. The model had predictive relevance for all variables, but the cross-validated redundancy figure was very close to zero for goal-specificity, and was just below zero for external success, suggesting that the predictive relevance for these variables was slightly suboptimal.

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Table A10.11.i. Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Reappraisal	Reap1	0.735	0.184	0.853	0.498
	Reap2	0.703	0.169		
	Reap3	0.872	0.387		
	Reap4	0.491	0.202		
	Reap5	0.700	0.201		
	Reap6	0.679	0.248		
Suppression	Supp1	0.152	-0.245	0.564	0.297
	Supp2	0.288	-0.156		
	Supp3	0.763	0.794		
	Supp4	0.706	0.675		
Positive anticipated emotions	Delight	0.926	0.234	0.929	0.692
	Excitement	0.887	0.212		
	Gladness	0.848	0.190		
	Happiness	0.902	0.214		
	Pride	0.831	0.201		
Negative anticipated emotions	Satisfaction	0.533	0.141	0.900	0.479
	Anger	0.732	0.151		
	Depression	0.726	0.096		
	Disappointment	0.714	0.198		
	Discomfort	0.774	0.168		
	Fear	0.761	0.136		
	Frustration	0.682	0.179		
	Guilt	0.601	0.101		
	Sadness	0.635	0.101		
	Shame	0.439	0.036		
	Worry	0.786	0.232		
Problem-Focused Coping	ActiveCope	0.901	0.356	0.849	0.547
	InstSocSupp	0.626	0.225		
	PlanCope	0.813	0.272		
	ResCope	0.370	0.021		
	SupprCompAct	0.857	0.361		
Mastery Approach	G1MAGO	0.943	0.792	0.809	0.685
Performance Approach	G2MAGO	0.693	0.364		
Performance Avoid	G1PAGO	0.996	0.999	0.468	0.498
	G2PAGO	-0.056	-0.084		
Goal-difficulty	G1PAvGO	0.912	0.932	0.224	0.483
	G2PAvGO	-0.366	-0.411		
Goal-specificity	G1DiffI	0.735	0.324	0.853	0.600
	G1DiffS	0.539	0.101		
	G2DiffI	0.894	0.382		
	G2DiffS	0.878	0.416		
Actions	G1Spec	0.815	0.563	0.823	0.699
	G2Spec	0.857	0.632		
External Success	G1Actions	0.877	0.717	0.788	0.653
	G2Actions	0.732	0.507		
External Success	ExtSucc1	0.773	0.355	0.859	0.755
	ExtSucc2	0.955	0.759		

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Table A10.11.ii. Average Variance Extracted by constructs and correlations between constructs to assess Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Actions	0.808											
2. External Success	0.398	0.869										
3. Goal-difficulty	0.395	-0.047	0.775									
4. Goal-specificity	0.655	0.022	0.299	0.836								
5. Mastery Approach	-0.048	-0.087	0.213	0.129	0.828							
6. Negative anticipated emotions	0.024	0.112	-0.037	0.039	-0.087	0.692						
7. Performance Approach	0.366	0.011	0.272	0.351	0.018	0.007	0.706					
8. Performance Avoid	-0.413	-0.037	-0.314	-0.329	-0.042	-0.125	-0.361	0.695				
9. Positive anticipated emotions	0.172	-0.036	0.086	0.066	-0.185	0.148	-0.160	-0.329	0.832			
10. Problem-focused coping	0.363	0.025	0.219	0.077	-0.043	0.051	0.034	-0.095	0.526	0.740		
11. Reappraisal	0.197	-0.049	0.322	-0.053	0.068	-0.226	0.065	0.139	0.313	0.626	0.706	
12. Suppression	0.297	-0.056	0.051	0.39	0.09	0.472	0.031	-0.205	-0.022	-0.052	-0.011	0.545

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.11.iii. Cross-loadings for measurement model

	Actions	External Success	Goal-difficulty	Goal-specificity	Mastery Approach	Negative anticipated emotions	Perf Approach	Perf Avoid	Positive anticipated emotions	Problem-focused coping	Reappraisal	Suppression
G1Action	0.877	0.279	0.370	0.620	0.025	-0.005	0.293	-0.324	0.141	0.442	0.231	0.219
G2Action	0.732	0.391	0.255	0.415	-0.131	0.054	0.308	-0.356	0.140	0.090	0.062	0.277
ExtS1	0.234	0.773	-0.117	-0.022	-0.024	0.038	-0.139	0.112	-0.074	0.118	-0.005	-0.188
ExtS2	0.415	0.955	-0.007	0.039	-0.104	0.129	0.080	-0.101	-0.012	-0.022	-0.062	0.014
G1DiffI	0.273	-0.055	0.735	0.205	0.274	-0.174	0.109	-0.184	0.109	0.107	0.195	-0.176
G1DiffS	0.025	-0.064	0.539	-0.035	0.125	-0.15	-0.037	-0.132	0.126	0.019	0.303	-0.249
G2DiffI	0.346	-0.152	0.894	0.323	0.193	0.085	0.251	-0.274	0.120	0.302	0.320	0.210
G2DiffS	0.412	0.084	0.878	0.270	0.091	0.005	0.346	-0.328	-0.019	0.160	0.254	0.125
G1Spec	0.533	0.074	0.208	0.815	0.062	-0.043	0.349	-0.119	0.058	-0.027	-0.059	0.184
G2Spec	0.562	-0.031	0.288	0.857	0.149	0.100	0.245	-0.415	0.052	0.147	-0.031	0.453
G1MAGO	0.067	0.024	0.252	0.148	0.943	-0.054	-0.013	-0.014	-0.166	-0.041	0.071	0.138
G2MAGO	-0.279	-0.291	0.036	0.033	0.693	-0.121	0.076	-0.085	-0.148	-0.030	0.032	-0.052
Anger	0.049	0.100	-0.173	-0.041	-0.067	0.732	-0.049	-0.144	0.308	0.243	-0.181	0.273
Depression	-0.128	0.026	0.044	-0.224	-0.104	0.726	-0.093	0.085	0.041	0.054	-0.014	0.243
Disappointment	-0.144	-0.108	-0.077	-0.104	-0.079	0.714	0.050	-0.014	-0.026	-0.142	-0.299	0.396
Discomfort	-0.031	0.004	-0.007	0.104	0.099	0.774	-0.014	-0.096	0.166	0.031	-0.057	0.438
Fear	0.102	0.358	-0.047	-0.039	-0.148	0.761	-0.042	0.083	0.073	0.167	0.020	0.320
Frustration	0.094	0.000	-0.058	0.241	0.019	0.682	0.069	-0.314	0.161	-0.063	-0.303	0.331
Guilt	0.210	0.061	0.031	0.165	-0.178	0.601	0.106	-0.277	0.373	0.101	0.002	0.207
Sadness	-0.067	0.03	0.026	-0.203	-0.113	0.635	-0.178	-0.004	0.102	0.179	-0.117	0.195
Shame	0.061	-0.007	0.214	-0.137	-0.116	0.439	0.078	-0.147	0.306	0.105	0.136	0.143
Worry	0.065	0.246	0.021	0.175	-0.073	0.786	0.058	-0.06	-0.1	-0.05	-0.304	0.462
G1PAGO	0.405	0.036	0.269	0.358	-0.001	0.018	0.996	-0.353	-0.142	0.055	0.073	0.033
G2PAGO	0.451	0.288	-0.032	0.068	-0.217	0.140	-0.056	0.100	0.218	0.249	0.095	0.020

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Table A10.11.iii. Cross-loadings for measurement model (cont.)

	Actio ns	Extern al Success	Goal- difficulty	Goal- specificity	Mastery Approach	Negative antic emotions	Perf Approach	Perf Avoid	Positive antic emotions	Problem- focused coping	Reappraisal	Suppre ssion
G1PAvGO	-0.429	-0.066	-0.352	-0.290	-0.037	-0.003	-0.407	0.912	-0.276	-0.065	0.013	-0.150
G2PAvGO	0.032	-0.060	-0.034	0.143	0.019	0.297	-0.044	-0.366	0.174	0.085	-0.310	0.160
Delight	0.273	-0.018	0.198	0.152	-0.094	0.067	-0.049	-0.324	0.926	0.537	0.374	0.021
Excitement	0.197	-0.092	0.145	0.143	-0.194	0.145	0.063	-0.424	0.887	0.475	0.223	-0.022
Gladness	0.051	0.061	0.085	0.003	-0.170	0.136	-0.258	-0.037	0.848	0.457	0.348	-0.04
Happiness	0.149	0.036	0.009	0.022	-0.174	0.154	-0.307	-0.232	0.902	0.445	0.241	-0.035
Pride	0.002	-0.131	0.006	-0.025	-0.247	0.199	-0.157	-0.382	0.831	0.343	0.187	-0.035
Satisfaction	0.176	-0.034	-0.072	-0.002	-0.023	0.018	-0.115	-0.213	0.533	0.347	0.161	-0.005
ActiveCope	0.323	0.083	0.166	-0.005	-0.063	0.096	0.035	-0.113	0.499	0.901	0.573	-0.080
InstSocSup P	0.301	-0.001	0.422	0.134	0.014	-0.002	0.068	-0.136	0.249	0.626	0.461	0.189
PlanCope	0.19	-0.031	0.027	0.008	0.062	-0.01	0.018	-0.067	0.42	0.813	0.524	-0.143
ResCope	0.116	0.109	0.113	0.129	0.057	-0.14	0.187	-0.048	-0.05	0.370	0.38	0.092
SupprComp Act	0.348	0.004	0.153	0.122	-0.116	0.063	-0.006	-0.015	0.495	0.857	0.465	-0.081
Reapp1	0.127	-0.12	0.32	-0.052	0.217	-0.131	0.305	-0.061	0.152	0.496	0.735	-0.084
Reapp2	0.055	-0.013	0.143	-0.06	0.076	-0.059	-0.058	0.319	0.185	0.339	0.703	0.083
Reapp3	0.159	-0.171	0.368	0.072	0.128	-0.311	0.115	0.15	0.294	0.503	0.872	-0.016
Reapp4	0.306	-0.031	0.187	0.074	0.036	-0.004	-0.106	-0.04	0.268	0.507	0.491	0.007
Reapp5	0.216	0.327	0.073	-0.129	-0.037	-0.082	0.084	0.103	0.211	0.292	0.700	-0.027
Reapp6	-0.010	-0.073	0.178	-0.201	-0.137	-0.218	-0.085	0.104	0.174	0.491	0.679	0.000
Suppr1	-0.059	0.009	-0.035	-0.051	-0.258	-0.106	-0.188	0.473	-0.157	0.038	0.206	0.152
Suppr2	0.208	0.141	0.271	0.184	-0.078	-0.067	0.169	0.141	-0.081	0.124	0.302	0.288
Suppr3	0.246	0.030	0.104	0.360	0.129	0.321	0.082	-0.104	0.002	0.029	0.045	0.763
Suppr4	0.178	-0.083	0.002	0.177	-0.130	0.268	-0.080	0.022	-0.111	-0.069	0.075	0.706

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The results of the fully specified model resulted in largely similar findings, with some changes. The percentage of variance explained for positive anticipated emotions decreased to 30.1%, and for negative anticipated emotions decreased to 24.6%. The addition of reappraisal and suppression, goal orientations and goal-setting increased the percentage of variance explained in problem-focused coping to 57.1% (a large effect). The percentage of variance explained in both goal-setting variables increased to 27.9% for goal-difficulty and 36.1% for goal-setting, while the percentage of variance explained in actions increased to 74.7%. The inclusion of all variables in the model as direct predictors of external success resulted in the percentage of variance explained increasing to 38.7%. Given that reappraisal and suppression were placed in a more distal phase in the theoretical model than goal orientations, arrows were also included to explore whether these more distal concepts would have an impact on the more proximal goal orientations. Reappraisal and suppression had a negligible effect on mastery approach, explaining 0.5% of the variance, and had a small effect on performance approach and performance avoid, explaining 2.1% and 5.8% of the variance in each respectively.

Table A10.11.iv. Estimation of the structural model (emotional variables, cognitive variables with goal-setting and actions, and external success).

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Positive anticipated emotions	.422	Large	.717	.251	.301	Large	.706	.019
Negative anticipated emotions	.285	Large	.528	.122	.246	Medium-large	.547	.144
Problem-focused coping	.277	Large	.442	.223	.571	Large	.447	.368
Mastery Approach	N/A	N/A	N/A	N/A	.005	Negligible	.843	-.042
Performance Approach	N/A	N/A	N/A	N/A	.021	Small	.423	-.146
Performance Avoid	N/A	N/A	N/A	N/A	.058	Small	.793	-.048
Goal-difficulty	.178	Medium	.627	.137	.279	Large	.626	.132
Goal-specificity	.188	Medium	.513	.038	.361	Large	.507	.122
Actions	.549	Large	.637	.332	.747	Large	.646	.365
External success	.175	Medium	.654	-.010	.387	Large	.688	-.352

To explain these effects in more detail, the individual paths were examined. Figure A10.11.i and Table A10.11.v outline the results of the path coefficients for the model specifying the direct paths between each sequential phase of the model only. Only those paths relating to external success are examined as all other relationships were previously interpreted in the main analysis. Actions taken towards ones goal had a significant positive relationship on external success, which was medium in its effect size. Problem-focused coping also had a significant positive impact on external success, but this was very small in its effect size.

Figure A10.11.ii and Table A10.11.vi. outline the results for the fully specified model. Again, only the paths relevant to external success are interpreted as all other paths were assessed in the main analysis. Actions had a significant positive effect on external success, while goal-specificity had a significant negative effect. Performance approach goals, performance avoid goals, positive anticipated emotions, and suppression had small, but non-significant negative effects on external success, while negative anticipated emotions had a small, but non-significant negative effect. For ease of interpretation, only the significant paths and the non-significant but small effects paths are included in Figures A10.11.i and ii.

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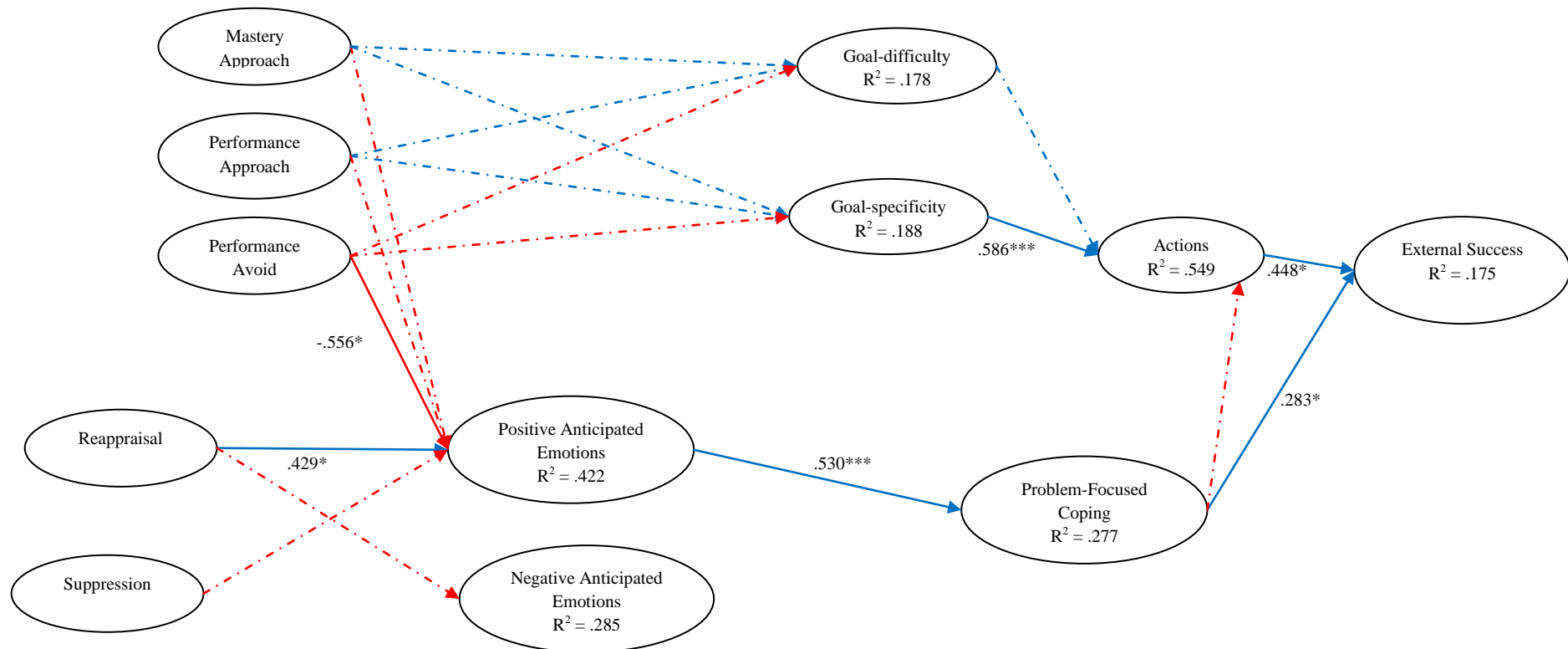


Figure A10.11.i. Results of Partial Least Squares analysis for the model investigating the relationships between emotional variables, cognitive variables with goal-setting and actions, and external success. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; dashed lined indicate non-significant paths; blue dashed paths- small positive effects, red dashed paths- small negative effects).

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Table A10.11.v. Statistical results for Path Coefficients in direct effects only model (emotional variables, cognitive variables with goal-setting and actions, and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Actions → External success	0.448*	2.06	0.218	0.218	.021; .875	.187	Medium
Problem-focused coping → External success	0.283*	2.16	0.131	0.131	.026; .540	.018	Very small
Problem focused coping → actions	-0.138	0.493	0.280	0.280	-.687; .411	.188	Medium
Goal-difficulty → Actions	0.158	1.46	0.108	0.108	-.054; .370	.044	Small
Goal-specificity → Actions	0.586***	5.41	0.108	0.108	.374; .798	.701	Large
Negative anticipated emotions → Goal-difficulty	-0.060	0.245	0.245	0.245	-.540; .420	.002	Negligible
Negative anticipated emotions → Goal-specificity	0.014	0.071	0.195	0.195	-.368; .396	.004	Negligible
Negative anticipated emotions → Problem-focused coping	-0.027	0.134	0.205	0.205	-.429; .375	.000	Negligible
Positive anticipated emotions → Goal-difficulty	0.101	0.498	0.204	0.204	.299; .501	.007	Negligible
Positive anticipated emotions → Goal-specificity	0.070	0.349	0.201	0.201	-.324; .464	.005	Negligible
Positive anticipated emotions → Problem-focused coping	0.530***	3.48	0.152	0.152	.232; .828	.382	Large
Mastery approach goal orientation → Negative anticipated emotions	-0.115	0.629	0.183	0.183	-.474; .244	-.001	Negligible
Mastery approach goal orientation → Goal-difficulty	0.214	0.861	0.249	0.249	-.274; .702	.046	Small
Mastery approach goal orientation → Goal-specificity	0.130	0.619	0.210	0.210	-.282; .542	.020	Small
Mastery approach goal orientation → Positive anticipated emotions	-0.222	1.31	0.170	0.170	-.555; .111	.087	Small
Performance approach goal orientation → Negative anticipated emotions	0.008	0.035	0.230	0.230	-.443; .459	.001	Negligible
Performance approach goal orientation → Goal-difficulty	0.211	1.11	0.190	0.190	-.161; .583	.043	Small
Performance approach goal orientation → Goal-specificity	0.290	1.31	0.221	0.221	-.143; .723	.068	Small
Performance approach goal orientation → Positive anticipated emotions	-0.382	1.61	0.237	0.237	-.847; .083	.208	Medium
Performance Avoid goal orientation → Negative anticipated emotions	0.001	0.005	0.245	0.245	-.479; .481	.003	Negligible
Performance Avoid goal orientation → Goal-difficulty	-0.203	0.816	0.249	0.249	-.691; .285	.029	Small
Performance Avoid goal orientation → Goal-specificity	-0.194	0.957	0.203	0.203	-.592; .204	.028	Small
Performance Avoid goal orientation → Positive anticipated emotions	-0.556*	2.09	0.266	0.266	-1.08; -.035	.422	Large
Reappraisal → Negative anticipated emotions	-0.213	0.805	0.265	0.265	-.723; .306	.092	Small
Reappraisal → Positive anticipated emotions	0.429*	2.33	0.184	0.184	-.177; .545	.298	Medium-large
Suppression → Negative anticipated emotions	0.480	1.04	0.462	0.462	-.426; 1.39	.018	Very small
Suppression → Positive anticipated emotions	-0.100	0.517	0.193	0.193	-.478; .278	.085	Small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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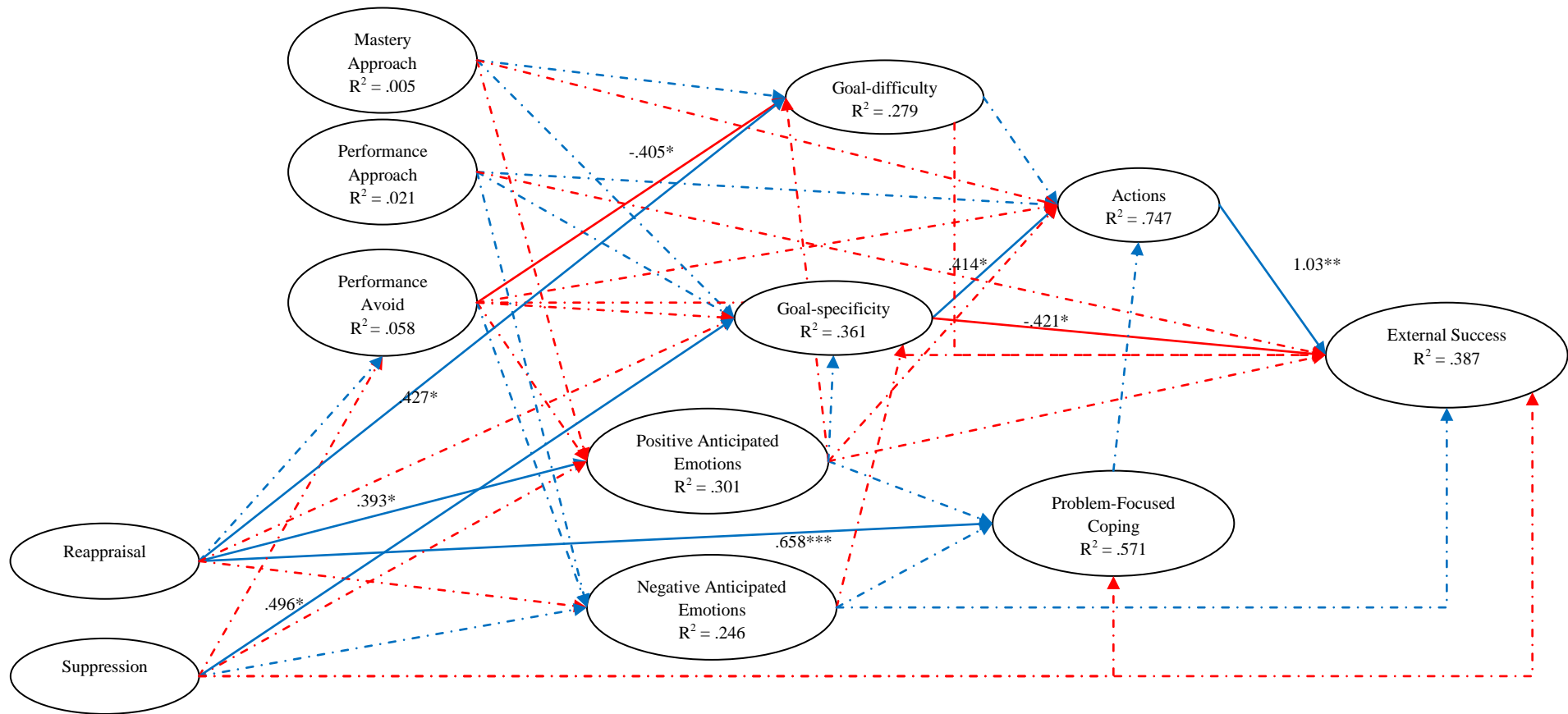


Figure A10.11.ii. Results of Partial Least Squares analysis for the fully specified model investigating the relationships between emotional variables, cognitive variables with goal-setting and actions, and external success. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$ (dashed lines indicate non-significant small effects).

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Table A10.11.vi. Statistical results for Path Coefficients in fully specified model (emotional variables, cognitive variables with goal-setting and actions, and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Actions → External Success	1.03**	2.58	0.401	0.401	.244; 1.82	.440	Large
Goal-difficulty → External success	-0.171	0.791	0.217	0.217	-.539; .197	.031	Small
Goal-difficulty → Actions	0.085	0.611	0.140	0.140	-.189; .359	.130	Small-medium
Goal difficulty → problem-focused coping	-0.060	0.339	0.176	0.176	-.405; .285	.007	Negligible
Goal-specificity → External success	-0.421*	1.37	0.306	0.306	-1.02; .179	.209	Medium
Goal-specificity → Actions	0.414*	2.55	0.163	0.163	.095; .733	.715	Large
Goal specificity → problem-focused coping	0.140	0.683	0.205	0.205	-.262; .542	.016	Very small
Problem-focused coping → External success	-0.070	0.203	0.347	0.347	-.750; .610	.000	Negligible
Problem-focused coping → Actions	0.206	1.12	0.183	0.183	-.153; .565	.138	Small-medium
Negative anticipated emotions → Goal-difficulty	0.013	0.059	0.221	0.221	-.420; .446	.001	Negligible
Negative anticipated emotions → Goal-specificity	-0.228	0.895	0.255	0.255	-.728; .272	.066	Small
Negative anticipated emotions → Actions	-0.106	0.663	0.161	0.161	-.422; .210	.012	Very small
Negative anticipated emotions → Problem-focused coping	0.181	0.935	0.194	0.194	-.199; .561	.054	Small
Negative anticipated emotions → External success	0.235	0.808	0.291	0.291	-.335; .805	.052	Small
Positive anticipated emotions → Goal-difficulty	-0.170	0.755	0.226	0.226	-.613; .273	.025	Small
Positive anticipated emotions → Goal-specificity	0.132	0.593	0.222	0.222	-.303; .567	.038	Small
Positive anticipated emotions → Actions	-0.088	0.487	0.181	0.181	-.443; .267	.024	Small
Positive anticipated emotions → Problem-focused coping	0.240	1.25	0.192	0.192	-.136; .616	.089	Small
Positive anticipated emotions → External success	-0.099	0.440	0.224	0.224	-.577; .379	.021	Small
Mastery approach goal orientation → Positive anticipated emotions	-0.250	1.35	0.185	0.185	-.613; .113	.077	Small
Mastery approach goal orientation → Negative anticipated emotions	-0.096	0.462	0.208	0.208	-.504; .312	.005	Negligible
Mastery approach goal orientation → Goal-difficulty	0.031	0.125	0.252	0.252	-.463; .525	.001	Negligible
Mastery approach goal orientation → Goal-specificity	0.124	0.577	0.215	0.215	-.297; .545	.030	Small
Mastery approach goal orientation → Actions	-0.237	1.08	0.219	0.219	-.666; .192	.170	Medium
Mastery Approach goal orientation → Problem-focused coping	0.026	0.166	0.159	0.159	-.286; .337	.005	Negligible
Mastery Approach goal orientation → External success	0.035	0.125	0.280	0.280	-.514; .584	.000	Negligible
Performance approach goal orientation → Positive anticipated emotions	-0.115	0.401	0.286	0.286	-.676; .446	.016	Very small
Performance approach goal orientation → Negative anticipated emotions	0.101	0.422	0.239	0.239	-.367; .569	.042	Small
Performance approach goal orientation → Goal-difficulty	0.036	0.185	0.194	0.194	-.344; .416	-.001	Negligible
Performance approach goal orientation → Goal-specificity	0.301	1.29	0.234	0.234	-.158; .760	.105	Small-medium

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Table A10.11.iv (cont.).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Performance approach goal orientation → Actions	0.331	1.42	0.234	0.234	-.128; .790	.320	Medium-large
Performance Approach goal orientation → Problem-focused coping	0.064	0.303	0.212	0.212	-.352; .480	-.004	Negligible
Performance Approach goal orientation → External success	-0.213	0.675	0.315	0.315	-.830; .404	.039	Small
Performance Avoid goal orientation → Positive anticipated emotions	-0.433	1.55	0.279	0.279	-.980; .114	.220	Medium
Performance Avoid goal orientation → Negative anticipated emotions	0.025	0.087	0.292	0.292	-.547; .597	.062	Small
Performance Avoid goal orientation → Goal-difficulty	-0.405*	1.74	0.233	0.233	-.862; .052	.192	Medium
Performance Avoid goal orientation → Goal-specificity	-0.123	0.429	0.286	0.286	-.684; .438	.069	Small
Performance Avoid goal orientation → Actions	-0.211	1.01	0.209	0.209	-.621; .199	.111	Small-medium
Performance Avoid goal orientation → Problem-focused coping	-0.059	0.227	0.258	0.258	.565; .446	.007	Negligible
Performance Avoid goal orientation → External success	0.140	0.460	0.305	0.305	-.458; .738	.033	Small
Reappraisal → Negative anticipated emotions	-0.254	0.939	0.271	0.271	-.785; .277	.154	Medium
Reappraisal → Positive anticipated emotions	0.393*	2.33	0.168	0.168	.064; .722	.216	Medium
Reappraisal → Mastery approach	0.059	0.299	0.199	0.199	-.331; .449	.004	Negligible
Reappraisal → Performance approach	0.124	0.671	0.185	0.185	-.239; .487	.019	Very small
Reappraisal → Performance avoid	0.118	0.622	0.189	0.189	-.252; .488	.050	Small
Reappraisal → Goal-difficulty	0.427*	2.29	0.187	0.187	-.060; .794	.160	Medium
Reappraisal → Goal-specificity	-0.210	1.01	0.207	0.207	-.616; .196	.067	Small
Reappraisal → Actions	0.043	0.201	0.212	0.212	-.373; .459	-.012	Negligible
Reappraisal → Problem-focused coping	0.658***	3.33	0.198	0.198	.270; 1.046	.448	Large
Reappraisal → External success	-0.065	0.179	0.363	0.363	-.776; .646	.003	Negligible
Suppression → Negative anticipated emotions	0.424	1.04	0.409	0.409	-.378; 1.23	.077	Small
Suppression → Positive anticipated emotions	-0.110	0.570	0.193	0.193	-.488; .268	.023	Small
Suppression → Mastery approach	0.035	0.155	0.227	0.227	-.410; .480	.002	Negligible
Suppression → Performance approach	0.068	0.278	0.244	0.244	-.410; .614	.005	Negligible
Suppression → Performance avoid	-0.218	0.559	0.391	0.391	-.984; .548	.051	Small
Suppression → Goal-difficulty	0.049	0.228	0.216	0.216	-.374; .472	.004	Negligible
Suppression → Goal-specificity	0.496*	1.90	0.261	0.261	-.016; 1.01	.239	Medium
Suppression → Actions	0.133	0.821	0.162	0.162	-.185; .451	.008	Negligible
Suppression → Problem-focused coping	-0.154	0.670	0.229	0.229	-.603; .295	.042	Small
Suppression → External success	-0.203	0.690	0.295	0.295	-.781; .375	.021	Small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{cv} * SE$

where $t_{cv} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

The final stage of the assessment of the structural model necessitates the investigation of the significance of the indirect paths. Only the indirect effects that pertained directly to the variables of goal-setting and actions were calculated as all others were estimated in the previous analysis. The bootstrap estimations and significance of the indirect effects can be found in Table A10.11.vii These were based on the fully specified model in order to control for any direct effects that the variables may be having (i.e. to control for the c' paths). Only the indirect effects pertaining to external success were calculated as all others were calculated in the main analysis.

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Table A10.11.vii. Test of the indirect effects on external success.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → Actions → external success	.179	.156	.189	.947	-.19; .56
Reappraisal → Goal-difficulty → external success	-.030	-.026	.092	-.326	-.21; .16
Reappraisal → Goal-specificity → external success	-.002	-.008	.050	-.040	-.12; .08
Suppression → Actions → external success	.359	.154	.252	1.42	-.34; .69
Suppression → Goal-difficulty → external success	-.014	-.003	.056	-.250	-.13; .12
Suppression → Goal-specificity → external success	.012	.020	.105	.114	-.17; .28
Positive anticipated emotions → Actions → external success	.007	.000	.172	.041	-.38; .34
Positive anticipated emotions → goal-difficulty → external success	.016	.013	.063	.254	-.10; .17
Positive anticipated emotions → goal-specificity → external success	.004	-.005	.073	.055	-.17; .15
Negative anticipated emotions → Actions → External success	-.175	-.063	.169	-1.04	-.42; .28
Negative anticipated emotions → goal difficulty → External success	-.001	-.007	.060	-.017	-.14; .11
Negative anticipated emotions → Goal specificity → External success	-.006	.007	.081	-.074	-.15; .19

* p < .05, ** p < .01; *** p < .001.010

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

As none of the indirect effects via one sequential mediator were significant, the indirect effects via two sequential mediators were not calculated. Finally, the total indirect effects were calculated across each sequential phase of the model (see Table A10.11.viii). None of the total indirect effects reached significance.

Table A10.11.viii. Test of total indirect effects.

Total Indirect effect (Σab - c')	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reappraisal → External Success	.015	.090	.350	.043	-.59; .81
Suppression → External Success	.203	.065	.277	.733	-.55; .55
Anticipated positive emotions → External success	-.037	-.040	.191	-.194	-.44; .33
Anticipated negative emotions → External success	-.091	-.007	.199	-.457	-.40; .38

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (ab \text{ original}) / (SD \text{ ab Bootstrapped})$

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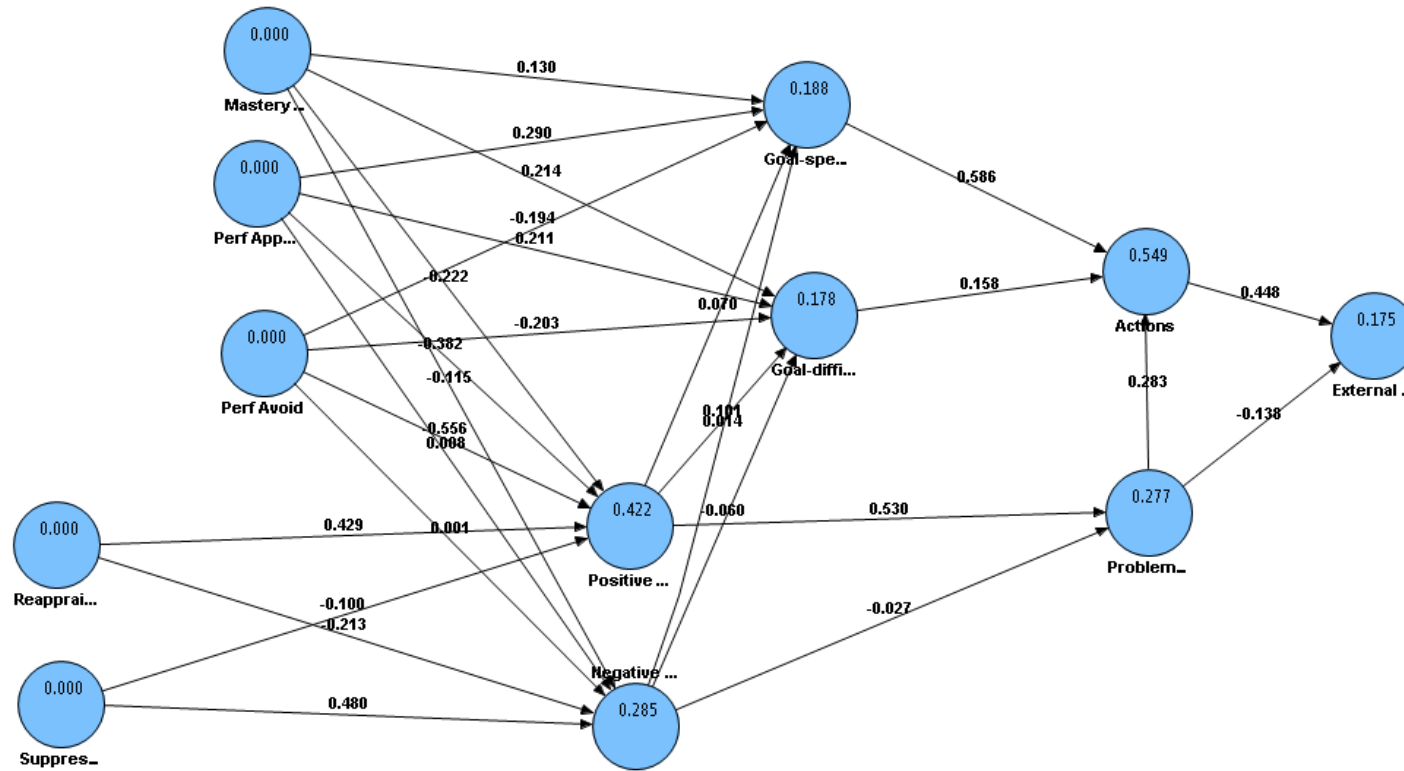


Figure A10.11.iii. Original PLS output for the direct effects model investigating emotional components, cognitive components (with goal-setting and actions) and external success.

Appendix 10.12: Model investigating the emotional variables, motivational variables, self-perceptions of success and objective success.

Table A10.12.i Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.633	0.375	0.705	0.303
	AutO	0.643	0.365		
	CAGg	0.721	0.448		
	IO	0.329	0.079		
	LO	0.294	0.038		
Personal Initiative	RTrs	0.540	0.311	0.858	0.465
	PI1	0.694	0.196		
	PI2	0.784	0.251		
	PI3	0.650	0.162		
	PI4	0.680	0.177		
	PI5	0.675	0.257		
	PI6	0.701	0.228		
Entrepreneurial Self-efficacy	PI7	0.570	0.190	0.891	0.577
	ESE1	0.776	0.292		
	ESE2	0.776	0.182		
	ESE3	0.716	0.214		
	ESE4	0.853	0.224		
	ESE5	0.710	0.255		
Creative Self-efficacy	ESE6	0.716	0.150	0.837	0.631
	CSE1	0.808	0.472		
	CSE2	0.820	0.416		
Work Engagement	CSE3	0.754	0.367	0.915	0.783
	Absorption	0.892	0.350		
	Dedication	0.820	0.330		
Reappraisal	Vigor	0.938	0.445	0.807	0.414
	Reap1	0.787	0.372		
	Reap2	0.593	0.161		
	Reap3	0.660	0.253		
	Reap4	0.618	0.359		
	Reap5	0.620	0.176		
Suppression	Reap6	0.555	0.205	0.605	0.335
	Supp1	0.249	-0.064		
	Supp2	0.213	-0.190		
	Supp3	0.686	0.558		
Positive anticipated emotions	Supp4	0.872	0.772	0.904	0.616
	Delight	0.870	0.257		
	Excitement	0.798	0.254		
	Gladness	0.856	0.208		
	Happiness	0.890	0.229		
	Pride	0.704	0.178		
Negative anticipated emotions	Satisfaction	0.532	0.125	0.922	0.542
	Anger	0.775	0.190		
	Depression	0.771	0.185		
	Disappointment	0.757	0.183		
	Discomfort	0.767	0.081		
	Fear	0.693	0.135		
	Frustration	0.717	0.119		
	Guilt	0.760	0.094		
	Sadness	0.679	0.145		
	Shame	0.669	0.115		
Problem focused coping	Worry	0.764	0.110	0.833	0.518
	ActiveCope	0.877	0.354		
	InstSocSupp	0.502	0.146		
	PlanCope	0.820	0.331		
	ResCope	0.418	0.069		
Objective Success	SupprCompAct	0.849	0.372	1.00	1.00
	ObjSucc	1.00	1.00		
	SelfSucc1	0.817	0.434		
	SelfSucc2	0.627	0.170		
Self-Perceptions of Success	SelfSucc3	0.881	0.612	0.823	0.612

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Table A10.12.ii Average Variance Extracted by constructs and correlations between constructs to assess Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. CSE	0.794											
2. EO	0.426	0.550										
3. ESE	0.581	0.486	0.760									
4. Negative anticipated emotions	0.012	0.021	0.091	0.736								
5. Objective Success	0.137	0.044	0.053	0.058	1.000							
6. Personal Initiative	0.460	0.470	0.635	0.062	0.076	0.682						
7. Positive anticipated emotions	0.209	0.335	0.240	0.225	-0.010	0.324	0.785					
8. Problem-focused coping	0.222	0.234	0.463	0.030	0.114	0.512	0.397	0.720				
9. Reappraisal	0.199	0.225	0.442	-0.118	0.028	0.427	0.288	0.468	0.643			
10. Self-perceptions of success	0.080	0.082	0.376	0.194	0.250	0.359	0.062	0.276	-0.021	0.782		
11. Suppression	0.029	-0.019	0.009	0.381	0.086	-0.008	-0.068	0.033	-0.059	-0.050	0.579	
12. Work Engagement	0.344	0.264	0.487	0.157	-0.007	0.537	0.349	0.421	0.309	0.171	0.010	0.885

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.12.iii Cross-loadings for measurement model

	CSE	EO	ESE	NAE	Objective Success	Personal Initiative	PAE	PFC	Reappraisal	Self-perc of success	Suppression	Work Eng
CSE1	0.808	0.395	0.490	-0.020	0.036	0.344	0.265	0.082	0.151	-0.014	0.028	0.309
CSE2	0.820	0.329	0.511	-0.057	0.015	0.452	0.046	0.279	0.178	0.075	-0.059	0.266
CSE3	0.754	0.279	0.373	0.122	0.310	0.298	0.177	0.183	0.145	0.152	0.109	0.236
AOtot	0.249	0.633	0.299	0.016	0.173	0.345	0.318	0.271	0.226	0.046	-0.030	0.173
AutOTot	0.152	0.643	0.413	0.126	0.021	0.304	0.055	0.047	0.130	0.258	-0.014	0.074
CAgg	0.398	0.721	0.369	-0.096	-0.048	0.305	0.317	0.177	0.059	0.040	-0.007	0.199
IOTot	0.259	0.329	-0.110	-0.119	0.225	0.121	0.172	-0.114	0.033	-0.139	0.026	0.047
LOTot	0.097	0.294	-0.064	-0.023	0.243	0.118	0.208	0.178	0.087	0.249	-0.057	0.120
RTTotRS	0.239	0.540	0.220	0.071	-0.108	0.254	0.105	0.124	0.193	-0.146	0.003	0.239
ESE1	0.744	0.486	0.776	-0.058	0.099	0.610	0.300	0.322	0.309	0.171	0.033	0.512
ESE2	0.332	0.257	0.776	0.086	-0.019	0.359	0.104	0.363	0.424	0.325	-0.120	0.287
ESE3	0.329	0.410	0.716	0.187	0.060	0.457	0.250	0.424	0.401	0.295	0.075	0.205
ESE4	0.426	0.372	0.853	0.052	-0.034	0.498	0.128	0.250	0.360	0.364	-0.070	0.350
ESE5	0.339	0.282	0.710	0.119	0.021	0.495	0.196	0.494	0.291	0.290	0.085	0.536
ESE6	0.343	0.361	0.716	0.071	0.110	0.374	0.008	0.203	0.227	0.322	-0.004	0.177
Anger	-0.108	0.010	0.086	0.775	0.015	0.032	0.295	0.158	-0.174	0.243	0.306	0.133
Depression	0.114	0.118	0.163	0.771	-0.058	0.098	0.225	0.037	0.008	0.042	0.365	0.208
Disappointment	-0.050	-0.139	-0.047	0.757	0.072	-0.090	-0.044	-0.093	-0.269	0.132	0.374	0.085
Discomfort	-0.025	0.029	-0.080	0.767	-0.098	0.026	0.169	-0.039	-0.087	0.002	0.219	0.026
Fear	-0.226	0.019	0.048	0.693	0.090	0.181	0.028	-0.020	0.095	0.224	0.299	0.100
Frustration	0.062	-0.074	-0.003	0.717	0.118	-0.063	0.149	-0.088	-0.313	0.227	0.196	0.034
Guilt	0.210	0.167	0.141	0.760	0.079	0.117	0.359	-0.022	-0.003	0.147	0.217	0.041
Sadness	0.093	0.066	0.234	0.679	0.025	0.149	0.239	0.158	0.023	0.219	0.181	0.263
Shame	0.268	0.079	0.213	0.669	0.095	0.131	0.340	0.153	0.136	0.091	0.222	0.219

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Table A10.12.iii (cont.)

	CSE	EO	ESE	NAE	Objective Success	Personal Initiative	PAE	PFC	Reappraisal	Self-perc of success	Suppression	Work Eng
Worry	-0.172	-0.073	-0.161	0.764	0.117	-0.111	-0.068	-0.112	-0.220	0.023	0.303	-0.086
ObjSucc5	0.137	0.044	0.053	0.058	1.00	0.076	-0.010	0.114	0.028	0.250	0.086	-0.007
PI1	0.279	0.361	0.412	-0.155	-0.075	0.694	0.077	0.327	0.253	0.139	-0.045	0.325
PI2	0.328	0.426	0.478	-0.021	-0.092	0.784	0.199	0.331	0.433	0.196	-0.039	0.471
PI3	0.174	0.232	0.343	0.160	-0.036	0.650	0.253	0.318	0.267	0.253	0.005	0.315
PI4	0.224	0.229	0.321	0.146	0.076	0.680	0.280	0.298	0.340	0.236	0.141	0.393
PI5	0.368	0.396	0.539	0.126	0.316	0.675	0.304	0.425	0.335	0.414	-0.005	0.338
PI6	0.330	0.298	0.444	0.152	0.112	0.701	0.274	0.497	0.345	0.233	0.040	0.518
PI7	0.451	0.235	0.432	-0.111	-0.004	0.570	0.149	0.204	0.005	0.209	-0.120	0.158
Delight	0.323	0.360	0.260	0.120	0.057	0.327	0.870	0.380	0.278	0.085	-0.058	0.262
Excitement	0.268	0.376	0.245	0.143	0.002	0.291	0.798	0.415	0.156	0.112	-0.147	0.302
Gladness	0.031	0.273	0.115	0.154	0.003	0.183	0.856	0.323	0.272	-0.005	-0.044	0.264
Happiness	0.169	0.360	0.244	0.187	-0.077	0.349	0.890	0.264	0.272	0.012	-0.061	0.341
Pride	0.089	-0.002	0.102	0.317	-0.058	0.163	0.704	0.229	0.178	0.106	0.038	0.308
Satisfaction	-0.024	0.067	0.103	0.211	0.015	0.155	0.532	0.202	0.213	-0.071	0.010	0.134
ActiveCope	0.039	0.193	0.299	0.113	0.135	0.424	0.400	0.877	0.399	0.221	0.028	0.360
InstSocSupp	0.230	0.277	0.268	-0.078	0.181	0.230	0.174	0.502	0.388	0.031	0.056	0.113
PlanCope	0.283	0.180	0.522	-0.110	-0.061	0.472	0.322	0.820	0.433	0.277	-0.092	0.332
ResCope	0.072	0.003	0.242	-0.107	0.068	0.200	-0.049	0.418	0.323	-0.002	0.137	0.174
SupprCompAct	0.204	0.177	0.345	0.121	0.149	0.426	0.340	0.849	0.280	0.273	0.096	0.416
Reapp1	0.260	0.124	0.410	-0.048	0.088	0.395	0.137	0.273	0.787	0.154	-0.119	0.178
Reapp2	-0.122	0.070	0.203	-0.084	-0.058	0.207	0.103	0.258	0.593	-0.052	0.062	0.200
Reapp3	0.044	0.158	0.215	-0.076	-0.043	0.249	0.286	0.494	0.660	-0.102	0.041	0.155
Reapp4	0.247	0.186	0.315	0.003	-0.045	0.369	0.292	0.339	0.618	-0.119	-0.015	0.226

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Table A10.12.iii (cont.)

	CSE	EO	ESE	NAE	Objective Success	Personal Initiative	PAE	PFC	Reappraisal	Self-perc of success	Suppression	Work Eng
Reapp5	-0.110	0.208	0.228	-0.033	0.064	0.154	0.201	0.141	0.620	-0.089	-0.016	0.109
Reapp6	0.200	0.116	0.240	-0.306	0.100	0.118	0.041	0.258	0.555	0.069	-0.131	0.344
SelfS1	0.186	0.251	0.442	0.168	0.301	0.461	0.129	0.202	0.029	0.817	-0.038	0.287
SelfS2	0.199	0.156	0.356	0.018	0.271	0.222	-0.024	0.079	0.004	0.627	-0.061	-0.072
SelfS3	-0.056	-0.086	0.202	0.193	0.120	0.198	0.017	0.286	-0.057	0.881	-0.038	0.096
Suppr1	0.067	0.088	0.016	-0.038	0.003	-0.090	-0.063	0.051	-0.022	-0.127	0.249	0.102
Suppr2	-0.001	0.061	-0.018	-0.100	0.122	-0.047	-0.136	0.066	0.047	-0.219	0.213	0.055
Suppr3	0.021	0.100	-0.009	0.241	-0.040	0.011	0.019	0.112	-0.024	-0.241	0.686	0.105
Suppr4	0.027	-0.074	0.015	0.292	0.171	-0.036	-0.140	-0.018	-0.049	0.045	0.872	-0.042
Absorption	0.315	0.179	0.301	0.179	0.015	0.369	0.354	0.379	0.218	0.073	0.133	0.892
Dedication	0.288	0.258	0.506	0.091	-0.049	0.550	0.256	0.211	0.273	0.159	-0.102	0.820
Vigor	0.312	0.262	0.483	0.143	0.009	0.509	0.315	0.492	0.319	0.209	-0.006	0.938

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Table A10.12.iv Estimation of the structural model (emotional variables, motivational and volitional resources, objective success and self-perceptions of success).

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Reappraisal	.183	Medium	.518	.100	.180	Medium	.520	.103
Suppression	.000	N/A	.383	-.044	.026	Small	.617	.004
Positive anticipated emotions	.113	Medium	.578	.050	.211	Medium	.582	.074
Negative anticipated emotions	.181	Medium	.530	.203	.076	Small	.509	.080
Problem-focused coping	.256	Large	.477	.108	.436	Large	.465	.234
Entrepreneurial self-efficacy	.482	Large	.610	.362	.446	Large	.605	.362
Creative self-efficacy	.269	Large	.625	.247	.262	Large	.611	.250
Work Engagement	.302	Large	.810	.191	.394	Large	.809	.224
Objective success	.013	Small	1.00	.061	.066	Small	1.00	.192
Self-perceptions of success	.076	Small-medium	.565	-.085	.396	Large	.723	.178

Table A10.12.v Statistical results for Path Coefficients in direct effects only model (emotional variables, motivational variables, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientation → creative self-efficacy	0.270*	2.06	0.131	0.131	.013; .527	.075	Small
Entrepreneurial orientation → entrepreneurial self-efficacy	0.235	1.62	0.145	0.145	-.049; .519	.081	Small
Entrepreneurial orientation → Reappraisal	0.031	0.208	0.147	0.147	-.257; .319	.000	Negligible
Entrepreneurial orientation → Suppression	-0.019	0.077	0.254	0.254	-.517; .479	.000	Negligible
Personal Initiative → Creative self-efficacy	0.335*	2.44	0.137	0.137	.066; .602	.101	Small-medium
Personal initiative → entrepreneurial self-efficacy	0.438***	3.32	0.132	0.132	.179; .697	.259	Medium
Personal initiative → Reappraisal	0.413**	3.26	0.127	0.127	.164; .662	.160	Medium
Personal initiative → Suppression	0.002	0.008	0.205	0.205	-.400; .404	.000	Negligible
Reappraisal → entrepreneurial self-efficacy	0.204*	1.91	0.107	0.107	-.006; .414	.037	Small
Reappraisal → creative self-efficacy	-0.003	0.019	0.156	0.156	-.309; .303	.000	Negligible
Reappraisal → negative anticipated emotions	-0.174	0.784	0.222	0.222	-.609; .261	.048	Small
Reappraisal → positive anticipated emotions	0.231	1.21	0.192	0.192	-.145; .607	.043	Small
Suppression → entrepreneurial self-efficacy	0.036	0.337	0.107	0.107	-.174; .246	.006	Negligible
Suppression → creative self-efficacy	0.029	0.287	0.101	0.101	-.169; .227	.003	Negligible
Suppression → negative anticipated emotions	0.371	1.21	0.308	0.308	-.233; .975	.129	Small-medium
Suppression → positive anticipated emotions	-0.058	0.342	0.170	0.170	-.391; .275	.002	Negligible

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Table A10.12.v (cont.)

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Creative self-efficacy → work engagement	0.072	0.539	0.133	0.133	-.189; .333	.009	Negligible
Creative self-efficacy → negative anticipated emotions	-0.091	0.481	0.190	0.190	-.463; .281	.002	Negligible
Creative self-efficacy → positive anticipated emotions	0.128	0.757	0.169	0.169	-.203; .459	.012	Very small
Entrepreneurial self-efficacy → Work engagement	0.385**	2.83	0.136	0.136	.118; .652	.136	Small-medium
Entrepreneurial self-efficacy → negative anticipated emotions	0.218	0.949	0.230	0.230	-.233; .669	.032	Small
Entrepreneurial self-efficacy → positive anticipated emotions	0.064	0.417	0.154	0.154	-.238; .366	-.003	Negligible
Negative anticipated emotions → problem focused coping	-0.090	0.582	0.155	0.155	-.394; .214	.008	Negligible
Negative anticipated emotions → work engagement	0.070	0.567	0.123	0.123	-.171; .311	.004	Negligible
Positive anticipated emotions → problem focused coping	0.302*	2.23	0.135	0.135	.037; .567	.101	Small-medium
Positive anticipated emotions → work engagement	0.225*	1.83	0.123	0.123	-.016; .466	.066	Small
Work engagement → problem focused coping	0.330**	3.03	0.109	0.109	.116; .544	.103	Small-medium
Problem focused coping → objective success	0.114	0.866	0.132	0.132	-.143; .373	N/A	Only predictor
Problem focused coping → self-perceptions of success	0.276*	2.12	0.130	0.130	.021; .531	N/A	Only predictor

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table A10.12.vi Statistical results for Path Coefficients in fully specified model (emotional variables and motivational variables, objective success and self-perceptions of success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → Reappraisal	0.042	0.292	0.142	0.142	-.236; .320	.001	Negligible
Entrepreneurial orientations → Suppression	0.174	0.801	0.217	0.217	-.251; .599	.026	Small
Entrepreneurial orientations → creative self-efficacy	0.272*	1.99	0.136	0.136	.005; .539	.076	Small
Entrepreneurial orientations → entrepreneurial self-efficacy	0.174	1.10	0.159	0.159	-.138; .486	.042	Small
Entrepreneurial orientations → negative anticipated emotions	-0.058	0.332	0.174	0.174	-.399; .283	-.017	Negligible
Entrepreneurial orientations → positive anticipated emotions	0.301*	1.93	0.156	0.156	-.005; .607	.080	Small
Entrepreneurial orientations → problem focused coping	-0.096	0.652	0.148	0.148	-.386; .194	.009	Negligible
Entrepreneurial orientations → work engagement	-0.106	0.630	0.167	0.167	-.433; .221	.026	Small
Entrepreneurial orientations → objective success	0.094	0.426	0.221	0.221	-.339; .527	.005	Negligible
Entrepreneurial orientations → self-perceptions of success	0.041	0.210	0.195	0.195	-.341; .423	.018	Very small
Personal Initiative → Reappraisal	0.403***	3.34	0.121	0.121	.166; .640	.156	Medium
Personal Initiative → Suppression	-0.124	0.658	0.188	0.188	-.492; .244	.012	Very small
Personal Initiative → Creative self-efficacy	0.335*	2.32	0.144	0.144	.052; .617	.102	Small-medium
Personal initiative → entrepreneurial self-efficacy	0.458***	3.42	0.134	0.134	.195; .721	.265	Medium-large

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Table A10.12.vi (cont.)

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Personal initiative → negative anticipated emotions	0.128	0.674	0.190	0.190	-.244; .500	.002	Negligible
Personal initiative → positive anticipated emotions	0.157	1.09	0.144	0.144	-.125; .439	.016	Very small
Personal initiative → work engagement	0.372	2.56	0.145	0.145	.088; .658	.048	Small
Personal initiative → problem focused coping	0.262	1.52	0.172	0.172	-.075; .599	.124	Small-medium
Personal initiative → objective success	0.039	0.186	0.208	0.208	-.369; .447	-.003	Negligible
Personal initiative → self-perceptions of success	0.277	1.45	0.191	0.191	-.097; .651	.055	Small
Reappraisal → creative self-efficacy	-0.022	0.148	0.150	0.150	-.316; .272	-.004	Negligible
Reappraisal → entrepreneurial self-efficacy	0.200*	1.82	0.110	0.110	-.016; .416	.047	Small
Reappraisal → negative anticipated emotions	-0.252	1.29	0.196	0.196	-.636; .132	.011	Very small
Reappraisal → positive anticipated emotions	0.186	1.04	0.178	0.178	-.163; .535	.029	Small
Reappraisal → work engagement	0.046	0.301	0.152	0.152	-.252; .344	.010	Very small
Reappraisal → problem focused coping	0.245*	1.70	0.144	0.144	-.037; .527	.060	Small
Reappraisal → objective success	0.011	0.057	0.189	0.189	-.359; .381	.005	Negligible
Reappraisal → self-perceptions of success	-0.299*	1.99	0.150	0.150	-.593; -.005	.101	Small-medium
Suppression → creative self-efficacy	0.018	0.161	0.109	0.109	-.196; .232	.001	Negligible
Suppression → entrepreneurial self-efficacy	-0.012	0.118	0.105	0.105	-.218; .194	-.002	Negligible
Suppression → negative anticipated emotions	0.024	0.085	0.282	0.282	-.529; .577	.011	Very small
Suppression → positive anticipated emotions	-0.093	0.624	0.148	0.148	-.383; .197	.033	Small
Suppression → work engagement	0.152	1.12	0.136	0.136	-.115; .419	.033	Small
Suppression → problem focused coping	0.135	1.00	0.135	0.135	-.130; .400	.025	Small
Suppression → objective success	-0.012	0.063	0.181	0.181	-.367; .343	.001	Negligible
Suppression → self-perceptions of success	-0.258*	1.74	0.149	0.149	-.550; .034	.094	Small
Creative self-efficacy → negative anticipated emotions	-0.093	0.464	0.201	0.201	-.487; .301	.004	Negligible
Creative self-efficacy → positive anticipated emotions	0.031	0.203	0.153	0.153	-.269; .331	.009	Negligible
Creative self-efficacy → work engagement	0.059	0.362	0.164	0.164	-.262; .380	-.005	Negligible
Creative self-efficacy → Problem focused coping	-0.081	0.569	0.143	0.143	-.361; .199	.014	Very small
Creative self-efficacy → objective success	0.191	0.992	0.193	0.193	-.187; .569	.026	Small
Creative self-efficacy → self-perceptions of success	-0.161	0.949	0.169	0.169	-.492; .170	.023	Small
Entrepreneurial self-efficacy → negative anticipated emotions	0.252	1.12	0.224	0.224	-.187; .691	.023	Small
Entrepreneurial self-efficacy → positive anticipated emotions	-0.090	0.554	0.162	0.162	-.408; .228	-.019	Negligible
Entrepreneurial self-efficacy → Work engagement	0.186	1.13	0.164	0.164	-.135; .507	.028	Small
Entrepreneurial self-efficacy → problem-focused coping	0.227	1.14	0.199	0.199	-.163; .617	.030	Small

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Table A10.12.vi (cont.)

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial self-efficacy → objective success	-0.150	0.556	0.270	0.270	-.679; .379	-.004	Negligible
Entrepreneurial self-efficacy → self-perceptions of success	0.436*	1.95	0.223	0.223	-.001; .873	.126	Small-medium
Negative anticipated emotions → work engagement	0.076	0.555	0.137	0.137	-.193; .345	.008	Negligible
Negative anticipated emotions → problem focused coping	-0.057	0.449	0.126	0.126	-.304; .190	.007	Negligible
Negative anticipated emotions → objective success	0.131	0.848	0.154	0.154	-.171; .433	.015	Very small
Negative anticipated emotions → self-perceptions of success	0.137	0.905	0.152	0.152	-.161; .435	.023	Small
Positive anticipated emotions → work engagement	0.182	1.28	0.142	0.142	-.096; .460	.030	Small
Positive anticipated emotions → problem focused coping	0.217*	1.75	0.124	0.124	-.026; .460	.059	Small
Positive anticipated emotions → objective success	-0.132	0.686	0.193	0.193	-.510; .246	.014	Very small
Positive anticipated emotions → self-perceptions of success	-0.106	0.820	0.130	0.130	-.361; .149	.013	Very small
Work engagement → problem focused coping	0.052	0.469	0.110	0.110	-.164; .268	.005	Negligible
Work engagement → objective success	-0.102	0.597	0.170	0.170	-.435; .231	.001	Negligible
Work engagement → self-perceptions of success	-0.096	0.534	0.179	0.179	-.447; .255	.003	Negligible
Problem focused coping → Objective success	0.180	1.02	0.177	0.177	-.167; .527	.010	Very small
Problem focused coping → self-perceptions of success	0.153	0.920	0.166	0.166	-.172; .478	.023	Small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
 where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

Table A10.12.vii Test of the indirect effects of entrepreneurial orientations and personal initiative via one sequential mediator.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → Reap → CSE	-.001	.000	.025	-.040	-.05; .06
EO → Reap → ESE	.008	.013	.032	.250	-.05; .09
EO → Reap → PAE	.008	.008	.038	.211	-.07; .09
EO → Reap → NAE	-.011	-.018	.044	-.250	-.12; .06
EO → Supp → CSE	-.004	.005	.031	-.129	-.06; .08
EO → Supp → ESE	.035	-.002	.028	1.25	-.06; .05
EO → Supp → PAE	-.016	-.013	.048	-.333	-.13; .07
EO → Supp → NAE	.004	.010	.075	.053	-.14; .17
EO → CSE → PAE	.008	.012	.048	.167	-.08; .12
EO → CSE → NAE	-.025	-.016	.063	-.400	-.15; .11
EO → ESE → PAE	-.016	-.017	.044	-.364	-.13; .06
EO → ESE → NAE	.044	.034	.061	.721	-.07; .18
EO → PAE → WEng	.055	.052	.054	1.02	-.05; .17
EO → PAE → PFC	.065	.062	.052	1.25	-.02; .18
EO → PAE → OS	-.040	-.030	.067	-.597	-.18; .10
EO → PAE → SP	-.032	-.023	.045	-.711	-.13; .06
EO → NAE → WEng	-.004	-.001	.027	-.148	-.06; .06
EO → NAE → PFC	.003	.005	.029	.103	-.05; .08
EO → NAE → OS	-.008	-.006	.033	-.242	-.08; .06
EO → NAE → SP	-.008	-.002	.031	-.258	-.07; .06
EO → PFC → OS	-.017	-.015	.039	-.586	-.12; .05
EO → PFC → SP	-.015	-.013	.034	-.441	-.10; .04

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Table A10.12.vii (cont.)

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
PI → Reap → CSE	-.009	-.007	.068	-.132	-.15; .12
PI → Reap → ESE	.081	.085	.053	1.53	-.01; .20
PI → Reap → PAE	.075	.082	.082	.915	-.07; .25
PI → Reap → NAE	-.102	-.092	.088	-1.16	-.26; .09
PI → Supp → CSE	.003	-.003	.026	.115	-.07; .04
PI → Supp → ESE	-.025	.009	.024	-1.04	-.03; .07
PI → Supp → PAE	.012	.015	.040	.300	-.05; .12
PI → Supp → NAE	-.003	.007	.061	-.049	-.12; .14
PI → CSE → PAE	.010	.009	.057	.175	-.11; .13
PI → CSE → NAE	-.031	-.017	.077	-.503	-.17; .15
PI → ESE → PAE	-.041	-.030	.077	-.532	-.18; .15
PI → ESE → NAE	.115	.060	.106	1.08	-.17; .26
PI → PAE → WEng	.029	.028	.041	.707	-.04; .12
PI → PAE → PFC	.034	.037	.043	.791	-.03; .14
PI → PAE → OS	-.021	-.015	.043	-.488	-.11; .06
PI → PAE → SP	-.017	-.008	.028	-.607	-.07; .05
PI → NAE → WEng	.010	-.001	.032	.313	-.08; .06
PI → NAE → PFC	-.007	-.013	.034	-.206	-.10; .05
PI → NAE → OS	.017	.016	.042	.405	-.05; .12
PI → NAE → SP	-.017	.010	.038	-.447	-.06; .10
PI → PFC → OS	.047	.038	.059	.800	-.06; .17
PI → PFC → SP	.040	.036	.057	.702	-.05; .18

* p < .05, ** p < .01, *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

t = (ab original) / (SD ab Bootstrapped)

Table A10.12.viii Indirect effects of reappraisal and suppression.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Reap → PAE → WEng	.034	.045	.059	.576	-.03; .19
Reap → NAE → WEng	-.019	-.013	.041	-.436	-.11; .07
Reap → CSE → WEng	-.001	-.006	.026	-.038	-.07; .04
Reap → CSE → NAE	.002	-.003	.031	.065	-.07; .06
Reap → CSE → PAE	-.001	-.003	.024	-.042	-.06; .04
Reap → CSE → OS	-.004	-.001	.043	-.093	-.09; .09
Reap → CSE → SP	.004	.001	.033	.121	-.07; .07
Reap → ESE → WEng	.037	.043	.044	.841	-.03; .15
Reap → ESE → NAE	.050	.028	.052	.962	-.08; .14
Reap → ESE → PAE	-.019	-.018	.039	-.487	-.11; .06
Reap → ESE → OS	-.030	-.025	.059	-.508	-.17; .08
Reap → ESE → SP	.087	.093	.072	1.21	-.02; .26
Supp → PAE → WEng	-.017	-.018	.037	-.459	-.10; .05
Supp → NAE → WEng	.002	-.004	.044	.045	-.10; .09
Supp → CSE → WEng	.001	.000	.020	.050	-.04; .04
Supp → CSE → NAE	-.002	-.003	.025	-.080	-.06; .05
Supp → CSE → PAE	.001	.001	.018	.056	-.04; .04
Supp → CSE → OS	.003	.009	.031	.097	-.05; .08
Supp → CSE → SP	-.003	-.006	.025	-.012	-.07; .04
Supp → ESE → WEng	-.002	.000	.029	-.069	-.06; .06
Supp → ESE → NAE	-.003	.000	.027	-.111	-.06; .06

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Table A10.12.viii (cont.)

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
Supp → ESE → PAE	.001	.002	.020	.050	-.04; .05
Supp → ESE → OS	.002	.001	.030	.067	-.06; .07
Supp → ESE → SP	.005	.000	.055	.091	-.11; .12

* p < .05, ** p < .01, *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

t = (ab original) / (SD ab Bootstrapped)

Table A10.12.ix Indirect effects of self-efficacy and anticipated emotions on problem focused coping and work engagement.

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
PAE → WEng → PFC	.009	.010	.028	.321	-.04; .08
NAE → WEng → PFC	.004	.005	.018	.222	-.03; .05
CSE → PAE → WEng	.006	.003	.037	.162	-.08; .08
CSE → PAE → PFC	-.007	.008	.038	-.184	-.07; .09
CSE → NAE → WEng	-.016	.004	.031	-.516	-.06; .08
CSE → NAE → PFC	.019	.003	.032	.593	-.07; .08
ESE → PAE → WEng	.067	-.017	.043	1.56	-.12; .07
ESE → PAE → PFC	.005	-.017	.040	.125	-.10; .06
ESE → NAE → WEng	-.020	.006	.038	-.526	-.07; .09
ESE → NAE → PFC	-.014	-.009	.042	-.333	-.10; .08

* p < .05, ** p < .01, *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

t = (ab original) / (SD ab Bootstrapped)

Table A10.12.x Test of total indirect effects.

Total Indirect effect ($\Sigma ab - c'$)	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → CSE	.002	.005	.038	.053	-.07; .09
EO → ESE	.007	.011	.042	.167	-.07; .09
EO → WEng	.127	.124	.105	1.21	-.08; .34
EO → PAE	-.016	-.010	.084	-.190	-.19; .15
EO → NAE	.014	.012	.125	.112	-.23; .26
EO → PFC	.117	.125	.104	1.13	-.07; .34
EO → OS	-.018	-.001	.118	-.153	-.25; .22
EO → SP	-.058	-.018	.146	-.397	-.30; .28
PI → CSE	-.011	-.010	.071	-.155	-.16; .12
PI → ESE	.082	.093	.058	1.41	-.01; .22
PI → WEng	.166	.156	.115	1.44	-.08; .38
PI → PAE	.048	.065	.101	.475	-.13; .27
PI → NAE	.001	-.029	.155	.006	-.33; .28
PI → PFC	.243*	.270	.134	1.81	.02; .57
PI → OS	.012	-.006	.166	.072	-.33; .34
PI → SP	.116	.072	.160	.725	-.24; .40
Reappraisal → WEng	.143	.065	.091	1.57	-.11; .25
Reappraisal → PFC	.100	.101	.082	1.22	-.05; .27
Reappraisal → OS	-.031	-.013	.113	-.274	-.24; .20
Reappraisal → SP	.089	.105	.108	.824	-.09; .32
Suppression → WEng	-.017	-.022	.081	-.210	-.18; .13
Suppression → PFC	-.018	-.037	.071	-.254	-.17; .10
Suppression → OS	.118	.036	.104	1.13	-.14; .23
Suppression → SP	.010	.026	.118	.085	-.17; .26
CSE → PFC	.015	.014	.053	.283	-.09; .13
CSE → objective success	-.034	-.028	.073	-.466	-.19; .11
CSE → self-perceptions of success	-.031	-.020	.064	-.484	-.16; .11
ESE → PFC	-.025	-.018	.066	-.379	-.16; .12
ESE → objective success	.062	.048	.112	.553	-.17; .30
ESE → self-perceptions of success	.057	.023	.094	.606	-.17; .22
PAE → OS	.022	.019	.068	.324	-.13; .15
PAE → SP	.017	.007	.068	.250	-.13; .14
NAE → OS	-.017	-.020	.054	-.315	-.12; .07
NAE → SP	-.015	-.006	.048	-.313	-.10; .09

* p < .05, ** p < .01, *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

t = (ab original) / (SD ab Bootstrapped)

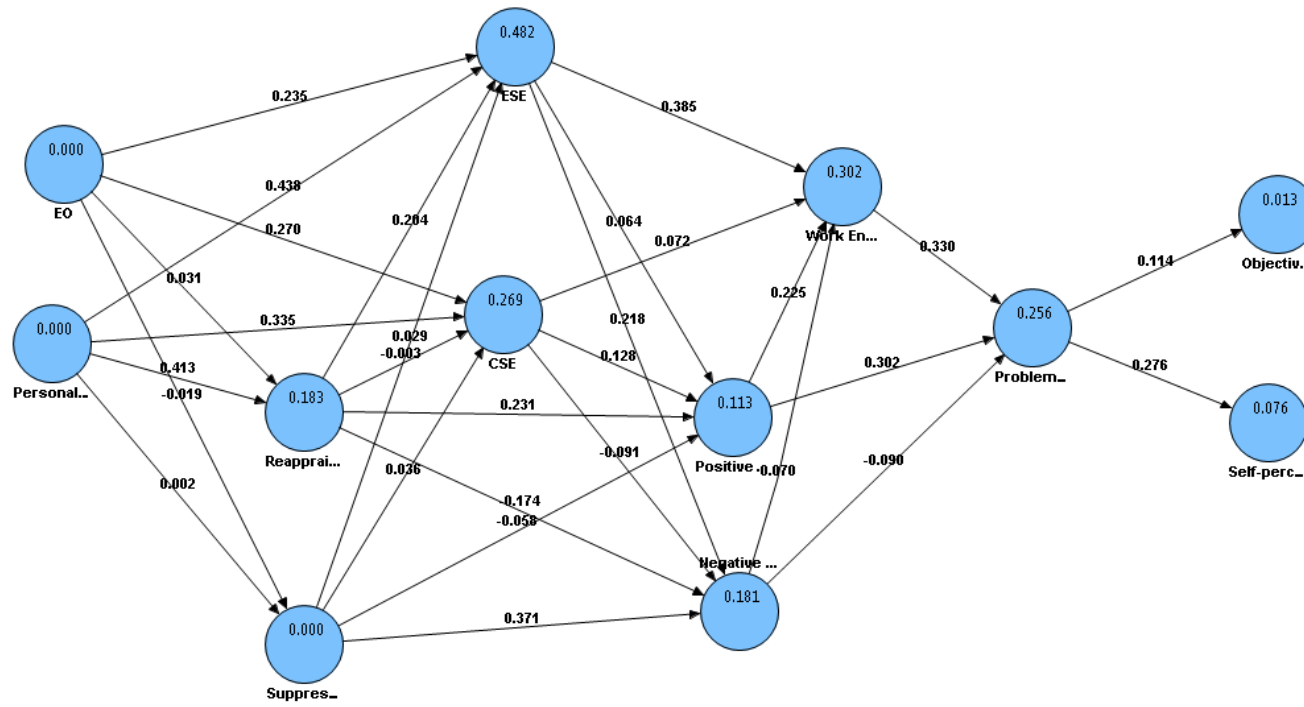


Figure A10.12.i. Original PLS output for model investigating the direct effects of the emotional variables and motivational variables on objective success and self-perceptions of success.

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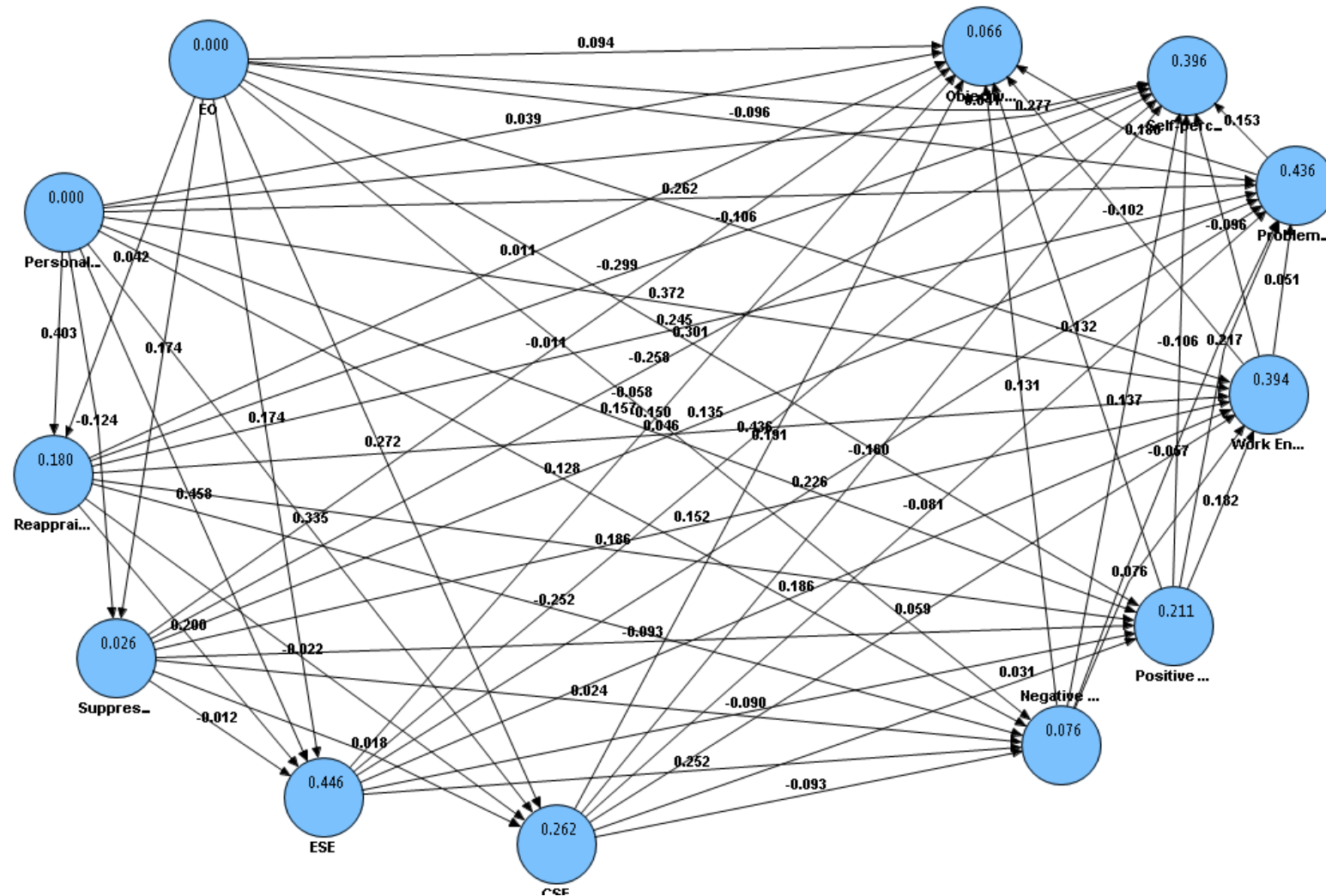


Figure A10.12.ii. Original PLS output for fully specified model investigating the effects of the emotional variables and motivational variables on objective success and self-perceptions of success.

Appendix 10.13: Model investigating the effects of the Emotional and Motivational components on External Success

The analysis presented in this appendix mirrors that in the main analysis, as outlined in section 10.5, but investigates the impact of the emotional and motivational components on external success, rather than objective success or self-perceptions of success. The results of the measurement model which are shown in this section pertain to the model as specified in Figure 11.8. The fully specified model was also calculated, but as the results of the measurement model for both versions are very similar, they are presented only once. The power of the sample size is only sufficient to detect large effects in this analysis, so effect size estimations were relied upon.

Table A10.13.i outlines the average variance extracted, the composite reliabilities, factor loadings and factor weights for each variable and its indicators in the model. The AVEs for entrepreneurial orientations, personal initiative, entrepreneurial self-efficacy, reappraisal and negative anticipated emotions were below the recommended level of .5, but the composite reliability for each of these variables were all high and above the recommended level of 0.6. The AVE and composite reliability for all other variables were above the recommended levels.

Looking at the factor loadings, for entrepreneurial orientation, five of its indicators were above 0.6, one was just below this, and the final indicator was above 0.4. However, none of the indicators were above the recommended level of 0.7. For personal initiative, three of the indicators were above 0.7, while all the others were above 0.6, except for one indicator which loaded at .540. For entrepreneurial self-efficacy, two of the indicators were above 0.7, two were above 0.6 and two were above 0.5. For creative self-efficacy and work engagement all indicators had high loadings. For reappraisal, one indicator loaded above 0.7, three loaded above 0.6 and the final two were just below this. For suppression, one indicator loaded above 0.7, a second loaded just below this, but the final two were quite low in the range of 0.2 to 0.3. For positive anticipated emotions, three indicators were above 0.7, two were above 0.6 and the final indicated loaded a little below 0.6. For negative anticipated emotions, five of the ten indicators loaded above 0.7, three loaded above 0.6, and the remaining two were somewhat lower. For problem focused coping, three of the five indicators loaded very highly, but the other two demonstrated suboptimal loadings in the range of 0.3 to 0.5. Finally, for external success one of the two indicators loaded above 0.7, but the second was somewhat lower than this. Although a number of loadings were less than ideal, and the measurement model was weaker than in the main analysis, the structural model was investigated (although with caution) so as to allow for the investigation of the impact of the model on external success.

Table A10.13.ii outlines the correlations between the latent variables and the square root of the AVE for each latent variable. The Fornell-Larker criterion is met as none of the latent variables are correlated more highly with another latent variable than their square root of the AVE. This provides evidence of discriminant validity. Table A10.13.iii outlines the cross-loadings for each indicator, and provides a second method of checking the discriminant validity. With one exception, none of the indicators loaded more highly on another latent variable than they do on their own. However, ESE1 loaded highly on creative self-efficacy, and this loading was slightly than on its own indicator, entrepreneurial self-efficacy. As these are two domain specific forms of self-efficacy relevant to entrepreneurship, this is not that unusual however. Hence, discriminant validity was largely evident.

Table A10.13.i. Factor loadings, Weights, Composite Scale Reliability, and AVE of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.663	0.343	0.778	0.374
	AutO	0.583	0.272		
	CAGg	0.685	0.233		
	IO	0.647	0.284		
	LO	0.636	0.225		
	RTrs	0.413	0.310		
Personal Initiative	PI1	0.692	0.213	0.855	0.463
	PI2	0.784	0.274		
	PI3	0.667	0.117		
	PI4	0.745	0.178		
	PI5	0.709	0.320		

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Table A10.13.i. (cont.)

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Self-efficacy	PI6	0.650	0.229	0.820	0.436
	PI7	0.469	0.110		
	ESE1	0.688	0.382		
	ESE2	0.642	0.197		
	ESE3	0.539	0.221		
	ESE4	0.718	0.202		
Creative Self-efficacy	ESE5	0.780	0.375	0.824	0.610
	ESE6	0.563	0.097		
	CSE1	0.724	0.394		
Work Engagement	CSE2	0.802	0.467	0.937	0.832
	CSE3	0.814	0.418		
Reappraisal	Absorption	0.909	0.380	0.841	0.470
	Dedication	0.892	0.320		
	Vigor	0.934	0.395		
	Reap1	0.707	0.181		
	Reap2	0.570	0.103		
	Reap3	0.747	0.232		
Suppression	Reap4	0.663	0.386	0.827	0.558
	Reap5	0.676	0.194		
	Reap6	0.735	0.346		
	Supp1	0.810	0.309		
Positive anticipated emotions	Supp2	0.886	0.412	0.929	0.691
	Supp3	0.772	0.432		
	Supp4	0.445	0.114		
	Delight	0.922	0.220		
	Excitement	0.884	0.217		
	Gladness	0.849	0.200		
	Happiness	0.903	0.212		
	Pride	0.825	0.190		
Negative anticipated emotions	Satisfaction	0.549	0.160	0.894	0.466
	Anger	0.796	0.271		
	Depression	0.694	0.102		
	Disappointment	0.677	0.150		
	Discomfort	0.709	0.061		
	Fear	0.789	0.233		
	Frustration	0.681	0.162		
	Guilt	0.542	0.053		
	Sadness	0.719	0.202		
	Shame	0.376	-0.034		
	Worry	0.736	0.154		
Problem focused coping	ActiveCope	0.895	0.357	0.836	0.533
	InstSocSupp	0.508	0.073		
	PlanCope	0.863	0.370		
	ResCope	0.319	0.021		
External Success	SupprCompAct	0.870	0.365	0.649	0.532
	ExtSucc1	0.973	1.125		
	ExtSucc2	0.343	-0.277		

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Table A10.13.ii. Average Variance Extracted by constructs and correlations between constructs to assess Discriminant Validity.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Creative Self-Efficacy	0.781										
2. Entrepreneurial Orientations	0.444	0.612									
3. Entrepreneurial Self-Efficacy	0.602	0.370	0.660								
4. External Success	-0.108	0.012	0.143	0.729							
5. Negative anticipated emotions	-0.285	-0.149	0.059	0.033	0.683						
6. Personal Initiative	0.464	0.434	0.490	0.160	-0.027	0.680					
7. Positive anticipated emotions	0.128	0.372	0.240	-0.075	0.152	0.437	0.831				
8. Problem-focused coping	0.274	0.292	0.487	0.155	0.112	0.670	0.533	0.730			
9. Reappraisal	0.381	0.377	0.490	-0.005	-0.189	0.531	0.319	0.650	0.686		
10. Suppression	0.026	0.366	0.045	-0.031	0.094	-0.035	-0.095	0.014	0.191	0.747	
11. Work Engagement	0.353	0.311	0.595	0.082	0.011	0.599	0.387	0.593	0.477	0.046	0.912

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A10.13.iii. Cross-loadings for measurement model

	CSE	EO	ESE	External Success	Negative anticipated emotions	Personal Initiative	Positive anticipated emotions	Problem-focused coping	Reappraisal	Suppression	Work Engagement
CSE1	0.724	0.424	0.369	-0.197	-0.271	0.222	0.157	-0.001	0.159	0.114	0.236
CSE2	0.802	0.241	0.493	-0.048	-0.230	0.463	-0.058	0.294	0.328	-0.123	0.403
CSE3	0.814	0.394	0.543	-0.019	-0.169	0.384	0.222	0.327	0.395	0.091	0.171
AOtot	0.247	0.663	0.277	0.069	-0.042	0.332	0.398	0.336	0.306	0.315	0.324
AutOTot	0.207	0.583	0.358	-0.067	0.153	0.180	-0.032	0.060	0.098	0.243	-0.037
CAgg	0.257	0.685	0.172	0.031	-0.287	0.204	0.197	0.146	0.123	0.209	0.170
IOTot	0.394	0.647	0.049	-0.017	-0.212	0.212	0.328	-0.018	0.200	0.269	0.056
LOTot	0.320	0.636	0.131	-0.004	-0.200	0.395	0.440	0.355	0.239	0.027	0.160
RTTotRS	0.192	0.413	0.306	0.018	-0.015	0.239	0.020	0.166	0.343	0.196	0.384
ESE1	0.782	0.532	0.688	-0.079	-0.235	0.476	0.283	0.301	0.344	0.048	0.517

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Table A10.13.iii. (cont.)

	CSE	EO	ESE	External Success	Negative anticipated emotions	Personal Initiative	Positive anticipated emotions	Problem-focused coping	Reappraisal	Suppression	Work Engagement
ESE2	0.227	0.046	0.642	0.273	0.073	0.175	0.035	0.402	0.362	-0.059	0.283
ESE3	0.244	0.217	0.539	0.150	0.292	0.322	0.255	0.380	0.429	0.088	0.116
ESE4	0.299	0.113	0.718	0.120	-0.034	0.139	0.035	0.218	0.279	-0.171	0.334
ESE5	0.338	0.176	0.780	0.098	0.184	0.421	0.202	0.390	0.322	0.097	0.628
ESE6	0.184	0.219	0.563	0.262	0.078	0.174	-0.145	0.193	0.157	0.175	0.141
ExtS1	-0.128	0.029	0.151	0.973	0.068	0.158	-0.070	0.130	-0.014	-0.006	0.067
ExtS2	-0.129	0.073	0.096	0.343	0.159	0.066	-0.013	-0.032	-0.041	0.087	-0.026
Anger	-0.365	-0.139	0.009	-0.011	0.796	-0.097	0.308	0.234	-0.187	-0.025	-0.036
Depression	-0.033	-0.064	0.157	0.075	0.694	0.007	0.042	0.054	0.049	0.079	0.041
Disappointment	-0.175	-0.241	-0.058	-0.100	0.677	-0.202	-0.026	-0.146	-0.315	0.116	-0.048
Discomfort	-0.132	0.031	-0.053	-0.168	0.709	0.067	0.161	0.024	0.007	0.128	-0.004
Fear	-0.320	-0.052	0.075	0.206	0.789	0.145	0.076	0.177	0.064	0.176	0.089
Frustration	-0.139	-0.204	0.045	0.005	0.681	-0.135	0.159	-0.051	-0.339	-0.155	-0.084
Guilt	0.090	0.195	0.209	-0.155	0.542	0.131	0.367	0.111	0.042	-0.055	-0.049
Sadness	-0.088	-0.143	0.195	-0.095	0.719	0.119	0.103	0.188	-0.054	0.106	0.238
Shame	0.294	0.163	0.263	-0.020	0.376	0.155	0.306	0.111	0.166	0.113	0.114
Worry	-0.185	-0.010	-0.090	0.204	0.736	-0.081	-0.099	-0.062	-0.272	0.238	-0.162
PI1	0.372	0.227	0.300	-0.012	-0.259	0.692	0.105	0.328	0.279	-0.171	0.437
PI2	0.365	0.379	0.310	0.152	-0.079	0.784	0.231	0.477	0.540	-0.005	0.427
PI3	0.114	0.320	0.216	0.053	0.076	0.667	0.233	0.384	0.196	0.111	0.303
PI4	0.171	0.345	0.259	0.318	0.024	0.745	0.362	0.392	0.356	0.034	0.388
PI5	0.416	0.342	0.512	0.044	0.079	0.709	0.519	0.583	0.500	-0.048	0.425
PI6	0.337	0.271	0.353	0.096	0.101	0.650	0.359	0.634	0.341	0.050	0.597
PI7	0.280	0.107	0.230	0.198	-0.105	0.469	0.109	0.211	-0.005	-0.111	0.106
Delight	0.166	0.374	0.200	-0.078	0.050	0.373	0.922	0.532	0.358	-0.049	0.261

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Table A10.13.iii. (cont.)

	CSE	EO	ESE	External Success	Negative anticipated emotions	Personal Initiative	Positive anticipated emotions	Problem- focused coping	Reappraisal	Suppression	Work Engagement
Excitement	0.270	0.443	0.327	-0.134	0.132	0.388	0.884	0.494	0.228	-0.024	0.381
Gladness	-0.064	0.316	0.078	-0.059	0.156	0.329	0.849	0.444	0.323	0.005	0.312
Happiness	-0.035	0.373	0.168	-0.004	0.176	0.429	0.903	0.456	0.251	-0.096	0.360
Pride	0.222	0.118	0.256	-0.218	0.186	0.346	0.825	0.354	0.237	-0.177	0.361
Satisfaction	0.067	0.185	0.160	0.160	0.054	0.305	0.549	0.350	0.172	-0.158	0.249
ActiveCope	0.168	0.247	0.413	0.048	0.174	0.606	0.502	0.895	0.613	0.046	0.523
InstSocSupp	0.187	0.164	0.072	-0.011	0.014	0.126	0.249	0.508	0.466	0.235	0.004
PlanCope	0.324	0.181	0.499	0.146	0.029	0.630	0.421	0.863	0.569	-0.184	0.603
ResCope	0.086	-0.005	0.015	0.139	-0.098	0.081	-0.049	0.319	0.338	0.113	0.057
SupprCompAct	0.214	0.342	0.409	0.225	0.110	0.574	0.496	0.870	0.493	0.126	0.497
Reapp1	0.116	0.124	0.171	-0.051	-0.109	0.337	0.154	0.489	0.707	-0.037	0.154
Reapp2	-0.041	0.178	0.159	0.125	-0.043	0.114	0.186	0.313	0.570	0.314	0.235
Reapp3	0.245	0.275	0.151	-0.035	-0.323	0.235	0.295	0.474	0.747	0.202	0.190
Reapp4	0.429	0.322	0.429	-0.027	-0.023	0.604	0.269	0.488	0.663	0.028	0.275
Reapp5	-0.017	0.306	0.333	0.191	-0.050	0.245	0.210	0.297	0.676	0.140	0.228
Reapp6	0.421	0.256	0.514	-0.077	-0.207	0.358	0.170	0.503	0.735	0.233	0.667
Suppr1	0.052	0.274	0.130	0.047	-0.102	0.034	-0.159	0.008	0.202	0.810	0.143
Suppr2	0.067	0.365	0.096	0.109	-0.058	0.009	-0.080	0.068	0.244	0.886	0.058
Suppr3	-0.045	0.318	-0.062	-0.196	0.275	-0.062	0.000	-0.008	0.052	0.772	0.000
Suppr4	0.015	-0.061	-0.070	-0.047	0.263	-0.192	-0.110	-0.113	0.050	0.445	-0.191
Absorption	0.354	0.339	0.500	-0.032	0.004	0.514	0.450	0.580	0.425	0.082	0.909
Dedication	0.264	0.220	0.494	0.121	-0.035	0.533	0.274	0.459	0.337	-0.043	0.892
Vigor	0.338	0.283	0.626	0.142	0.052	0.590	0.324	0.571	0.525	0.073	0.934

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Moving on to examine the structural model, Table A10.13.iv provides an overview of both versions of the model. In the model which included only the direct effects between each sequential phase, entrepreneurial orientations and personal initiative explained 30.8% of the variance in reappraisal, which is indicative of a large effect, and 18.0% of the variance in suppression, which is indicative of a medium effect. Interestingly, this contrasts with the main analysis, which did not explain a significant amount of variance in suppression. These variables, combined with reappraisal and suppression explained 31.1% of the variance in creative self-efficacy and 33.3% of the variance in entrepreneurial self-efficacy (both large effects). Both forms of self-efficacy, combined with reappraisal and suppression predicted 13.7% of the variance in positive anticipated emotions and 22.3% of the variance in negative anticipated emotions, which are both in the range of a medium effect. Self-efficacy combined with anticipated emotions had a large effect on work engagement, explaining 42.2% of its variance. Anticipated emotions combined with work engagement explained 46.3% of the variance in problem-focused coping (a large effect). Finally, problem-focused coping explained 2.4% of the variance in external success, which is a small effect. For the majority of variables, the Q^2 estimations were above zero. However, for positive anticipated emotions, both the cross validated redundancy and the cross validated commonality figures were below zero, suggesting that the model does not have predictive relevance for this variable. This is a somewhat unusual finding, given that 13.7% of the variance was explained in this variable. For external success, the cross-validated redundancy figure was below zero, although the cross-validated commonality figure was above zero, suggesting that predictive relevance was somewhat problematic here. However, in this version of the model, problem-focused coping was the only predictor for external success, and so this is less surprising.

The results of the fully specified model resulted in largely similar findings, with the effect sizes of the same magnitude for the majority of variables. The impact on suppression increase from zero to 2.6% which is a small effect, and the percentage of variance for negative anticipated emotions actually decreased from 18.1% to 7.6% (a small effect). The variance explained for reappraisal, entrepreneurial self-efficacy and creative self-efficacy remained relatively stable. The variance explained for positive anticipated emotions increased from 10.3% to 21.2%, for problem-focused coping the increase was from 25.6% to 43.6%, and work engagement increased from 30.2% to 38.4%. For the success variables, there was a small increase in the variance explained for objective success, increasing from 1.3% to 6.6%, but the increase for self-perceptions of success was much more pronounced, increasing from 7.6% to 38.6% (a large effect).

Table A10.13.iv. Estimation of the structural model (emotional variables, motivational and volitional resources, and external success).

	<i>Direct effects only model</i>				<i>Direct and indirect effects model</i>			
	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Reappraisal	.308	Large	.457	.182	0.277	Large	.438	.153
Suppression	.180	Medium	.507	.045	0.165	Medium	.495	.059
Positive anticipated emotions	.137	Medium	-.159	-.205	0.378	Large	.717	-.075
Negative anticipated emotions	.223	Medium-large	.601	.121	0.263	Large	.602	.157
Problem-focused coping	.463	Large	.294	.180	0.646	Large	.258	.262
Entrepreneurial self-efficacy	.333	Large	.565	.025	0.304	Large	.559	.003
Creative self-efficacy	.311	Large	.448	.142	0.298	Large	.445	.170
Work Engagement	.422	Large	.804	.181	0.502	Large	.798	.101
External success	.024	Small	.154	-.013	0.224	Medium-large	.690	-.117

To explain these effects in more detail, the individual paths were examined. Given the focus of the analysis in this appendix, only those paths relevant to the prediction of external success are interpreted. Figure A10.13.i and Table A10.13.v outline the results of the path coefficients for the model

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specifying the direct paths between each sequential phase of the model only. Problem focused coping did not have a significant effect on external success, but as its only predictor, it explained 2.4% of the variance in this variable.

Figure A10.13.ii and Table A10.13.vi outline the results for the fully specified model. For ease of interpretation, only the significant paths and the non-significant paths which demonstrate small effects are included in Figure A10.13.ii. In this model, none of the variables had a significant effect on external success, but given the reduced sample size in this analysis, this is unsurprising. However, a number of the variables had non-significant effects in the small to medium range. Entrepreneurial orientations, personal initiative and entrepreneurial self-efficacy had positive effects on external success ratings. All were in the small range, but entrepreneurial self-efficacy had the largest effect. Reappraisal, creative self-efficacy and positive anticipated emotions had negative effects on external success. The effects of reappraisal and positive anticipated emotions were small in size, while the effect of creative self-efficacy was medium in size.

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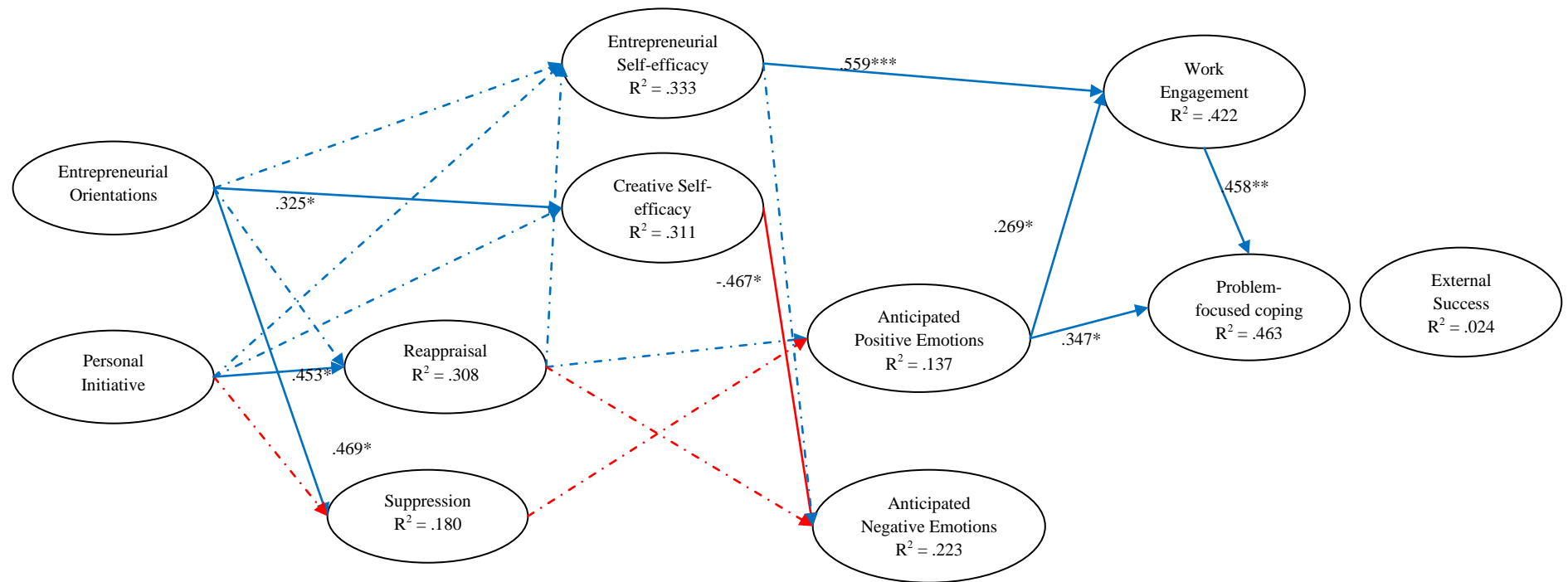


Figure A10.13.i. Results of Partial Least Squares analysis for the model investigating the relationships between emotional variables, motivational resources, and external success. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; dashed lined indicate non-significant paths; blue dashed paths- small positive effects, red dashed paths- small negative effects).

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Table A10.13.v. Statistical results for Path Coefficients in direct effects only model (emotional variables, motivational variables, and external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientation → creative self-efficacy	0.325*	1.78	0.182	0.182	-.032; .682	.081	Small
Entrepreneurial orientation → entrepreneurial self-efficacy	0.171	0.725	0.236	0.236	-.292; .634	.022	Small
Entrepreneurial orientation → Reappraisal	0.180	1.14	0.158	0.158	-.130; .490	.038	Small
Entrepreneurial orientation → Suppression	0.469*	2.33	0.201	0.201	.075; .863	.160	Medium
Personal Initiative → Creative self-efficacy	0.237	1.17	0.203	0.203	-.161; .635	.049	Small
Personal initiative → entrepreneurial self-efficacy	0.252	1.17	0.216	0.216	-.171; .675	.069	Small
Personal initiative → Reappraisal	0.453**	2.83	0.160	0.160	.139; .767	.241	Medium-large
Personal initiative → Suppression	-0.238	1.11	0.216	0.216	-.661; .185	.032	Small
Reappraisal → entrepreneurial self-efficacy	0.304	1.60	0.190	0.190	-.068; .676	.061	Small
Reappraisal → creative self-efficacy	0.154	0.790	0.195	0.195	-.228; .536	.013	Very small
Reappraisal → negative anticipated emotions	-0.264	1.01	0.262	0.262	-.778; .250	.031	Small
Reappraisal → positive anticipated emotions	0.307	1.25	0.246	0.246	-.175; .789	.072	Small
Suppression → entrepreneurial self-efficacy	-0.067	0.320	0.210	0.210	-.479; .345	.007	Negligible
Suppression → creative self-efficacy	-0.115	0.730	0.157	0.157	-.423; .193	.017	Very small
Suppression → negative anticipated emotions	0.135	0.386	0.350	0.350	-.551; .821	.004	Negligible
Suppression → positive anticipated emotions	-0.158	0.794	0.199	0.199	-.548; .232	.028	Small
Creative self-efficacy → work engagement	-0.040	0.212	0.187	0.187	-.407; .327	.002	Negligible
Creative self-efficacy → negative anticipated emotions	-0.467*	1.83	0.256	0.256	-.969; .035	.053	Small
Creative self-efficacy → positive anticipated emotions	-0.068	0.301	0.227	0.227	-.513; .377	.003	Negligible
Entrepreneurial self-efficacy → Work engagement	0.559***	3.38	0.165	0.165	.236; .832	.301	Medium-Large
Entrepreneurial self-efficacy → negative anticipated emotions	0.463	1.55	0.299	0.299	-.123; 1.05	.024	Small
Entrepreneurial self-efficacy → positive anticipated emotions	0.138	0.577	0.240	0.240	-.332; .608	.015	Very small
Negative anticipated emotions → problem focused coping	0.054	0.316	0.172	0.172	-.283; .391	.009	Negligible
Negative anticipated emotions → work engagement	-0.074	0.498	0.149	0.149	-.366; .218	.005	Negligible
Positive anticipated emotions → problem focused coping	0.347*	2.16	0.161	0.161	.031; .663	.147	Medium
Positive anticipated emotions → work engagement	0.269*	1.85	0.146	0.146	-.017; .555	.126	Small-medium
Work engagement → problem focused coping	0.458***	3.67	0.125	0.125	.213; .703	.318	Medium-large
Problem focused coping → External success	0.155	0.558	0.279	0.279	-.392; .702	N/A	Only predictor

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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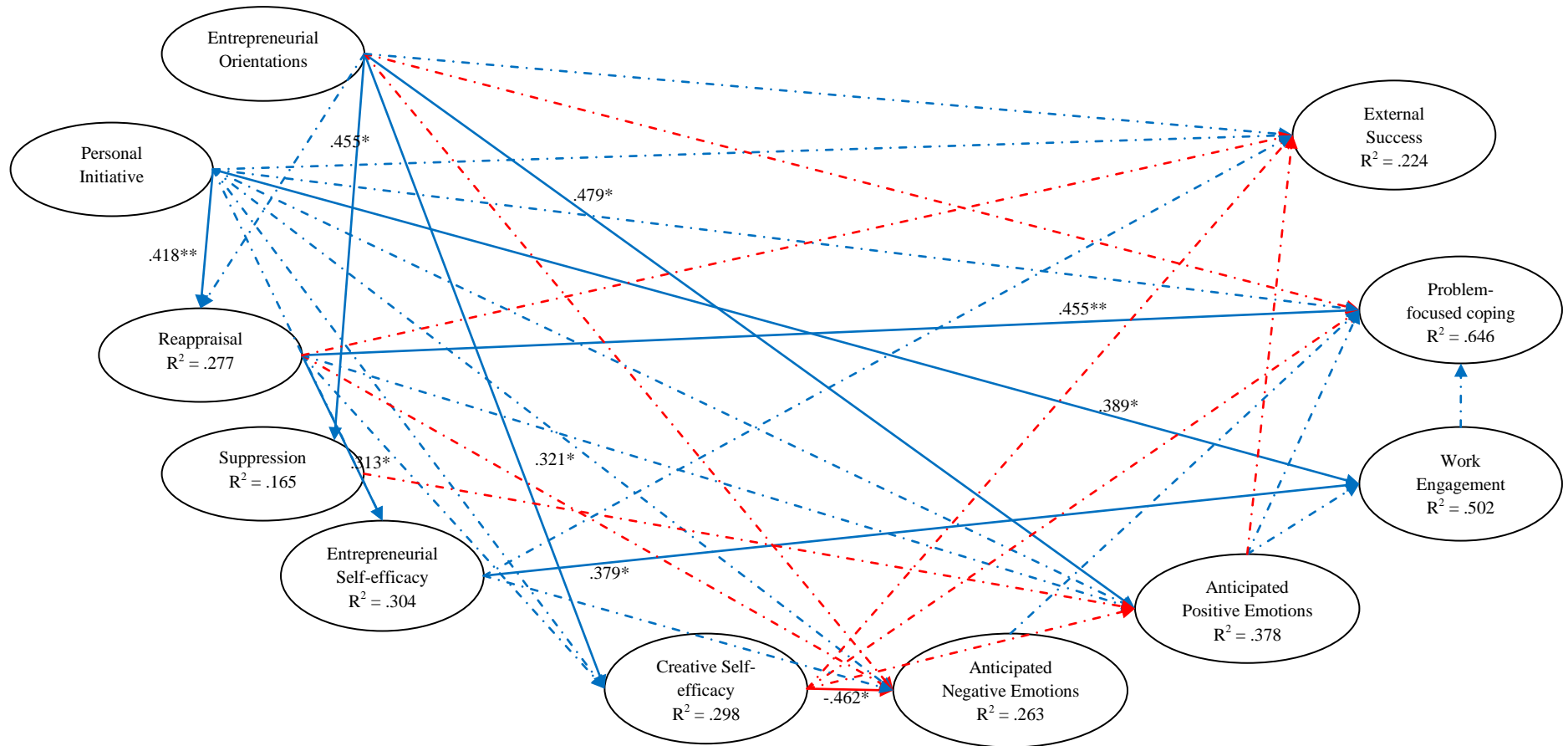


Figure A10.13.ii. Results of Partial Least Squares analysis for the fully specified model investigating the relationships between emotional variables, motivational resources, volitional resources, and external success. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$ (dashed lines indicate non-significant small effects).

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Table A10.13.vi. Statistical results for Path Coefficients in fully specified model (emotional variables and motivational variables, external success).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → Reappraisal	0.183	1.17	0.156	0.156	-.123; .489	.036	Small
Entrepreneurial orientations → Suppression	0.455*	2.12	0.215	0.215	.034; .876	.143	Small-medium
Entrepreneurial orientations → creative self-efficacy	0.321*	1.69	0.190	0.190	-.051; .693	.081	Small
Entrepreneurial orientations → entrepreneurial self-efficacy	0.076	0.308	0.247	0.247	-.408; .560	-.003	Negligible
Entrepreneurial orientations → negative anticipated emotions	-0.168	0.687	0.244	0.244	-.646; .310	.022	Small
Entrepreneurial orientations → positive anticipated emotions	0.479*	2.30	0.208	0.208	.071; .887	.223	Medium
Entrepreneurial orientations → problem focused coping	-0.077	0.375	0.206	0.206	-.481; .327	.034	Small
Entrepreneurial orientations → work engagement	-0.065	0.294	0.220	0.220	-.496; .366	-.012	Very small
Entrepreneurial orientations → External success	0.199	0.633	0.314	0.314	-.416; .814	.021	Small
Personal Initiative → Reappraisal	0.418**	2.92	0.143	0.143	.138; .698	.194	Medium
Personal Initiative → Suppression	-0.192	0.881	0.218	0.218	-.619; .235	.008	Negligible
Personal Initiative → Creative self-efficacy	0.236	1.10	0.214	0.214	-.183; .655	.044	Small
Personal initiative → entrepreneurial self-efficacy	0.282	1.34	0.211	0.211	-.132; .696	.085	Small
Personal initiative → negative anticipated emotions	0.250	1.11	0.224	0.224	-.189; .689	.035	Small
Personal initiative → positive anticipated emotions	0.266	1.60	0.166	0.166	-.059; .591	.048	Small
Personal initiative → work engagement	0.389*	2.17	0.179	0.179	.038; .740	.141	Small-medium
Personal initiative → problem focused coping	0.300	1.50	0.196	0.196	-.084; .684	.153	Medium
Personal initiative → External success	0.333	1.07	0.311	0.311	-.277; .943	.055	Small
Reappraisal → creative self-efficacy	0.151	0.780	0.194	0.194	-.299; .531	.024	Small
Reappraisal → entrepreneurial self-efficacy	0.313*	1.74	0.180	0.180	-.040; .666	.085	Small
Reappraisal → negative anticipated emotions	-0.297	1.19	0.250	0.250	-.787; .193	.037	Small
Reappraisal → positive anticipated emotions	0.136	0.552	0.247	0.247	-.348; .620	.023	Small
Reappraisal → work engagement	0.076	0.358	0.212	0.212	-.340; .492	-.002	Negligible
Reappraisal → problem focused coping	0.455**	2.61	0.174	0.174	.114; .796	.172	Medium
Reappraisal → External success	-0.209	0.602	0.347	0.347	-.889; .471	.022	Small
Suppression → creative self-efficacy	-0.123	0.765	0.161	0.161	-.439; .193	.019	Very small
Suppression → entrepreneurial self-efficacy	-0.023	0.104	0.217	0.217	-.448; .402	.004	Negligible
Suppression → negative anticipated emotions	0.157	0.417	0.378	0.378	-.584; .898	.015	Very small
Suppression → positive anticipated emotions	-0.294	1.45	0.203	0.203	-.690; .102	.096	Small
Suppression → work engagement	0.075	0.399	0.189	0.189	-.295; .445	.008	Negligible

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Table A10.13.vi. (cont.).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Suppression → problem focused coping	-0.010	0.057	0.166	0.166	-.335; .315	.000	Negligible
Suppression → External success	0.005	0.019	0.244	0.244	-.473; .483	-.003	Negligible
Creative self-efficacy → negative anticipated emotions	-0.462*	1.83	0.253	0.253	-.958; .034	.134	Small-medium
Creative self-efficacy → positive anticipated emotions	-0.294	1.53	0.193	0.193	-.672; .084	.077	Small
Creative self-efficacy → work engagement	-0.082	0.361	0.227	0.227	-.527; .363	.012	Very small
Creative self-efficacy → Problem focused coping	-0.023	0.109	0.210	0.210	-.435; .389	.023	Small
Creative self-efficacy → External success	-0.498	1.50	0.332	0.332	-1.15; .153	.159	Medium
Entrepreneurial self-efficacy → negative anticipated emotions	0.428	1.56	0.274	0.274	-.109; .965	.031	Small
Entrepreneurial self-efficacy → positive anticipated emotions	0.076	0.348	0.217	0.217	-.349; .501	-.003	Negligible
Entrepreneurial self-efficacy → Work engagement	0.379*	1.94	0.196	0.196	-.005; .763	.147	Small-medium
Entrepreneurial self-efficacy → problem-focused coping	0.043	0.177	0.245	0.245	-.437; .523	-.006	Negligible
Entrepreneurial self-efficacy → External success	0.448	1.02	0.438	0.438	-.410; 1.31	.104	Small-medium
Negative anticipated emotions → work engagement	-0.068	0.351	0.195	0.195	-.450; .314	-.002	Negligible
Negative anticipated emotions → problem focused coping	0.126	0.753	0.167	0.167	-.201; .453	.031	Small
Negative anticipated emotions → External success	-0.011	0.036	0.293	0.293	-.585; .563	.005	Negligible
Positive anticipated emotions → work engagement	0.155	0.745	0.208	0.208	-.253; .563	.026	Small
Positive anticipated emotions → problem focused coping	0.214	1.37	0.157	0.157	-.094; .522	.068	Small
Positive anticipated emotions → External success	-0.229	0.930	0.246	0.246	-.711; .253	.040	Small
Work engagement → problem focused coping	0.076	0.460	0.166	0.166	-.249; .401	.020	Small
Work engagement → External success	-0.167	0.628	0.267	0.267	-.690; .356	.017	Very small
Problem focused coping → External success	0.075	0.176	0.424	0.424	-.756; .830	.015	Very small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

The final stage of the assessment of the structural model necessitates the investigation of the significance of the indirect paths. The bootstrap estimations and significance of the indirect effects can be found in Table A10.13.vii. These were based on the fully specified model in order to control for any direct effects that the variables may be having (i.e. to control for the c' paths). None of the indirect paths reached significance. As none of the indirect paths with one mediator were significant, the indirect effects via two sequential mediators were not assessed, as these would be smaller again in magnitude. Finally, the total indirect effects were calculated across each sequential phase of the model (see Table A10.13.ix). None of the total indirect effects reached significance.

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Table A10.13.vii. Test of the indirect effects on external success

Indirect path	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → PAE → ES	-.110	-.058	.131	-.840	-.33; .23
EO → NAE → ES	.002	-.003	.080	.025	-.19; .16
EO → PFC → ES	.003	.007	.094	.032	-.19; .22
EO → Reap → ES	-.038	-.038	.090	-.422	-.25; .14
EO → Supp → ES	.002	.039	.114	.018	-.16; .31
PI → PAE → ES	-.061	-.040	.084	-.726	-.23; .13
PI → NAE → ES	-.003	-.006	.089	-.034	-.20; .19
PI → PFC → ES	.022	.029	.134	.164	-.23; .33
PI → Reap → ES	-.087	-.096	.165	-.527	-.45; .21
PI → Supp → ES	-.001	-.014	.071	-.014	-.19; .12
Reap → CSE → ES	-.075	-.067	.117	-.641	-.35; .12
Reap → ESE → ES	.140	.104	.157	.892	-.19; .44
Reap → WEng → ES	-.013	-.028	.072	-.181	-.22; .09
Supp → CSE → ES	.061	.028	.085	.718	-.13; .22
Supp → ESE → ES	-.010	-.005	.116	-.086	-.28; .22
Supp → WEng → ES	-.013	-.005	.058	-.224	-.13; .11
CSE → NAE → ES	.005	.0122	.122	.041	-.25; .29
CSE → PAE → ES	.067	.044	.087	.770	-.12; .24
ESE → NAE → ES	-.005	-.027	.120	-.042	-.30; .20
ESE → PAE → ES	-.017	-.009	.068	-.250	-.16; .13
PAE → WEng → ES	-.026	-.036	.077	-.338	-.22; .09
NAE → WEng → ES	.011	.008	.067	.164	-.13; .16
WEng → PFC → ES	.006	.014	.082	.073	-.15; .20

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

Table A10.13.ix. Test of total indirect effects.

Total Indirect effect (Σab - c')	Original ab	Mean Bootstrapped ab	Bootstrapped Sd	t	BC CI ₉₅
EO → External success	-.200	-.134	.258	-.775	-.63; .41
PI → External success	-.186	-.200	.277	-.671	-.75; .35
Reappraisal → External success	.040	.011	.291	.137	-.55; .60
Suppression → External success	.102	.017	.208	.490	-.42; .41
CSE → External success	.077	.057	.183	.420	-.33; .43
ESE → External success	-.072	-.072	.222	-.590	-.52; .39
PAE → External success	-.009	-.016	.144	-.063	-.32; .27
NAE → External success	.021	.0310	.113	.186	-.17; .28

* p < .05, ** p < .01; *** p < .001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

$t = (\text{ab original}) / (\text{SD ab Bootstrapped})$

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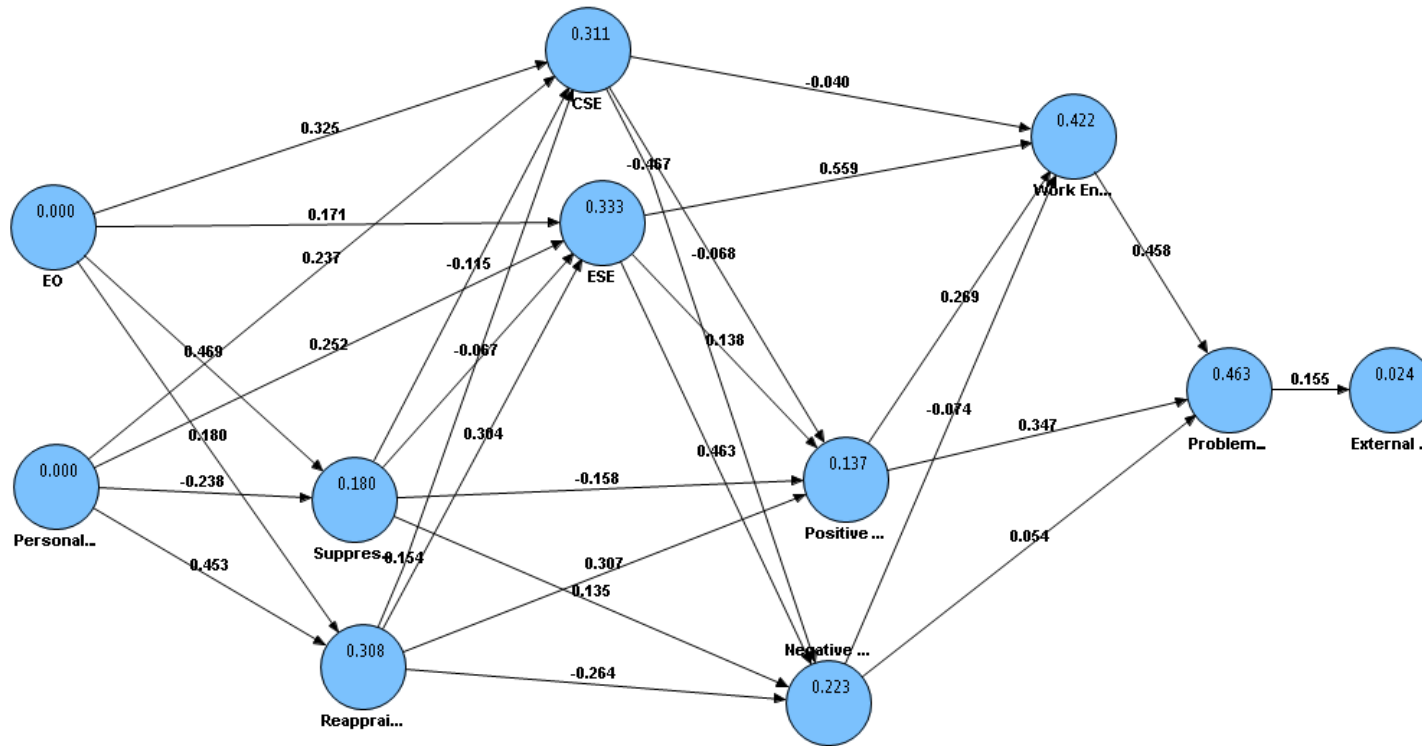


Figure A10.13.iii. Original PLS output for model investigating the direct effects of the emotional variables and motivational variables on external success.

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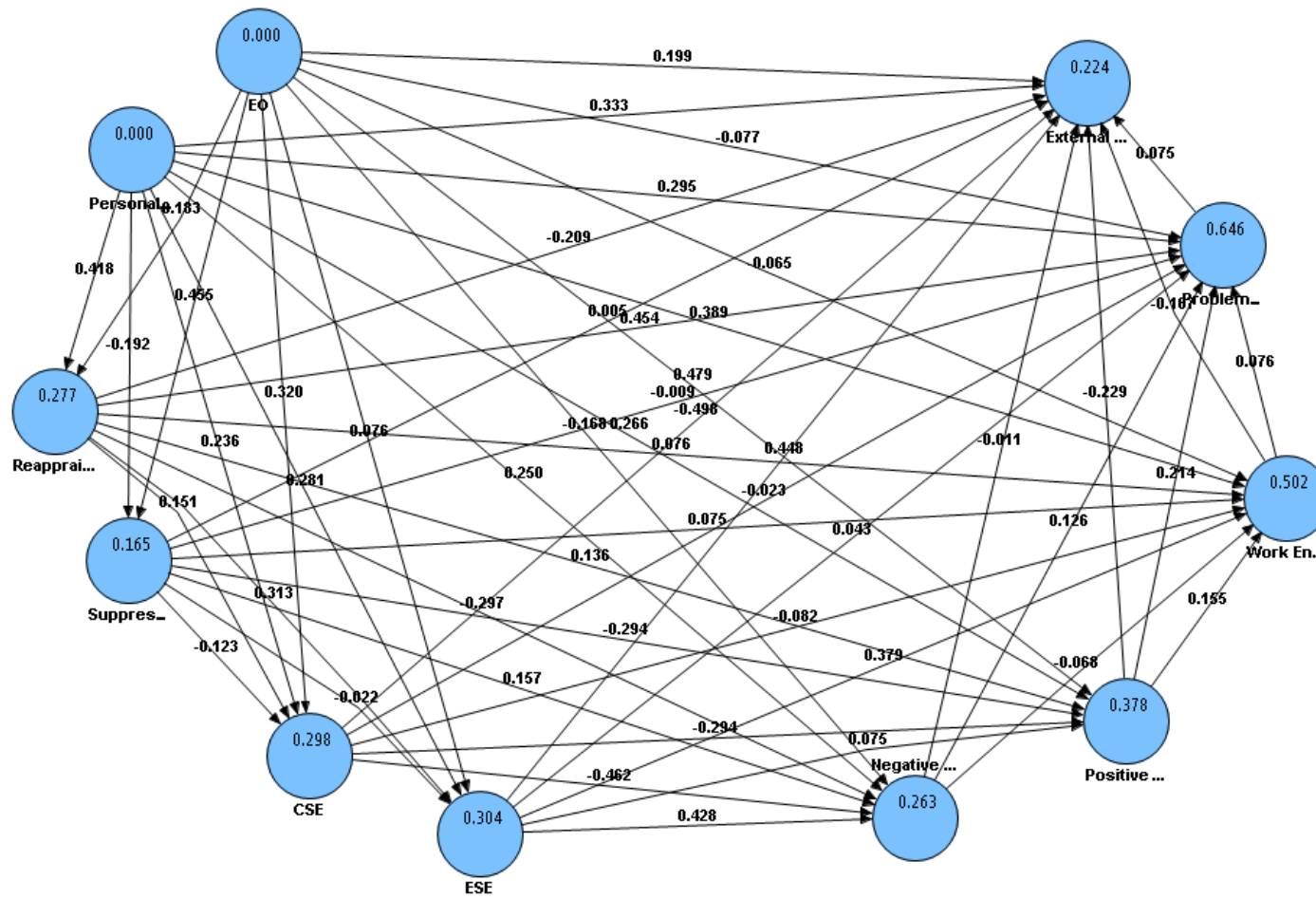


Figure A10.13.iv. Original PLS output for model investigating the direct and indirect effects of the emotional variables and motivational variables on external success.

Appendix 10.14: Model investigating the direct effects of Emotion Regulation on Planning

The analysis presented in this appendix considers the direct effect of reappraisal and suppression on planning, in the absence of any mediating variables. Table A10.14.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). Overall, the measurement model was quite problematic, with all AVEs and composite reliabilities quite poor. Two of the factor loadings for both suppression and planning respectively were negative. Discriminant validity was not entirely evident in the measurement as the correlation between suppression and planning (although negative) was greater than the AVE for planning either of these variables (see Table A10.14.ii). The negative loadings presented problems in the interpretation of the cross-loadings also (see Table A10.14.iii).

Table A10.14.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (reappraisal, suppression, planning).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Reappraisal	Reapp1	0.480	0.140	0.688	0.331
	Reapp2	0.904	0.602		
	Reapp3	0.801	0.444		
	Reapp4	0.062	-0.099		
	Reapp5	0.251	-0.163		
	Reapp6	0.478	0.167		
Suppression	Suppr1	-0.184	-0.077	0.002	0.195
	Suppr2	-0.484	-0.711		
	Suppr3	0.030	0.092		
	Suppr4	0.715	0.894		
Planning	G1EPlan	0.613	0.611	0.169	0.214
	G1ProPlan	0.620	0.672		
	G2EPlan	-0.213	-0.397		
	G2ProPlan	-0.220	-0.564		

Table A10.14.ii. Average Variance Extracted and correlations between constructs (reappraisal, suppression, planning).

	1.	2.	3.
1. Planning	0.463		
2. Reappraisal	0.288	0.575	
3. Suppression	-0.514	-0.031	0.442

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

The problems with the measurement model are somewhat intriguing given that these were not evident in many of the other models. These problems also suggest that the interpretation of the structural model may be problematic. However, for completeness, these findings are presented below. Table A10.14.iv demonstrates that reappraisal and suppression combined explained 33.8% of the variance in planning, which is a large effect. Examining the path coefficients (Table A10.14.v) indicates neither of the paths from reappraisal or suppression to planning reached significance, which is likely due to the large standard errors. However the effect size estimates indicated that suppression had a large effect on planning, while reappraisal had a small-medium effect.

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Table A10.14.iii. Cross-loadings for measurement model (reappraisal, suppression, problem-focused coping).

	Planning	Reappraisal	Suppression
G1EPlan	0.613	0.166	-0.225
G1ProPlan	0.620	0.121	-0.280
G2EPlan	-0.213	-0.111	0.145
G2ProPlan	-0.220	-0.108	0.232
Reapp1	0.063	0.480	-0.073
Reapp2	0.269	0.904	-0.005
Reapp3	0.199	0.801	-0.038
Reapp4	-0.044	0.062	-0.029
Reapp5	-0.073	0.251	-0.065
Reapp6	0.075	0.478	-0.087
Suppr1	0.030	0.048	-0.184
Suppr2	0.277	0.120	-0.484
Suppr3	-0.036	-0.006	0.030
Suppr4	-0.348	0.065	0.715

Table A10.14.iv. Estimation of the inner model (reappraisal, suppression and planning).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Planning	.338	Large	.490	.030

Table A10.14.v. Statistical results for Path Coefficients (reappraisal, suppression, planning).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Planning	0.272	1.013	0.268	0.268	-.253; .797	.106	Small-medium
Suppression → Planning	-0.505	1.313	0.385	0.385	-1.26; .250	.370	Large

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

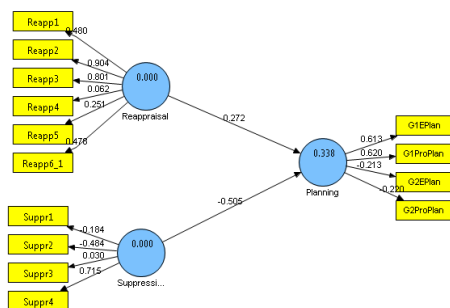


Figure A10.14.ii. Original PLS output for model investigating the direct effects of reappraisal and suppression on planning.

Appendix 10.15: Model investigating the direct effects of Emotion Regulation on Goal-setting

The analysis presented in this appendix considers the direct effect of reappraisal and suppression on goal-setting, in the absence of any mediating variables. Table A10.15.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). Overall, there were a number of issues with the measurement model, with three of the four latent variables showing AVEs below the required level, and the composite reliabilities were low for two of the four variables. One of the factor loadings for both goal-specificity was negative, and the other latent variables contained at least one indicator which loaded quite poorly. Discriminant validity was largely evident, the Fornell-Larcker criterion was met (see Table A10.15.ii), although the negatively loading indicator created problems in establishing discriminant validity when interpreting the cross-loadings (see Table A10.15.iii).

Table A10.15.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (reappraisal, suppression, goal-setting).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Reappraisal	Reapp1	0.721	0.270	0.778	0.379
	Reapp2	0.398	-0.052		
	Reapp3	0.543	0.187		
	Reapp4	0.668	0.393		
	Reapp5	0.779	0.458		
	Reapp6	0.499	0.211		
Suppression	Suppr1	0.300	0.093	0.569	0.315
	Suppr2	0.118	-0.334		
	Suppr3	0.572	0.430		
	Suppr4	0.911	0.842		
Goal-difficulty	G1DiffI	0.940	0.577	0.811	0.538
	G1DiffS	0.878	0.438		
	G2DiffI	0.506	0.038		
	G2DiffS	0.489	0.109		
Goal-specificity	G1Spec	0.873	1.071	0.314	0.389
	G2Spec	-0.124	-0.527		

Table A10.15.ii. Average Variance Extracted and correlations between constructs (reappraisal, suppression, goal-setting).

	1.	2.	3.	4.
1. Goal-difficulty	0.733			
2. Goal-specificity	0.185	0.624		
3. Reappraisal	0.032	-0.245	0.616	
4. Suppression	-0.291	-0.247	-0.077	0.561

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

The problems with the measurement model suggest that the interpretation of the structural model may be problematic. However, for completeness, these findings are presented below. Table A10.15.iv demonstrates that reappraisal and suppression combined explained 8.5% of the variance in goal difficulty and 13.1% of the variance in goal-specificity, which are indicative of a small and medium effect respectively. Examining the path coefficients (Table A10.15.v) demonstrated that none of the paths reached significance. However, the effect size estimates indicated that suppression had small effects on both goal difficulty and goal specificity, while reappraisal had a small effect on goal-specificity.

Table A10.15.iii. Cross-loadings for measurement model (reappraisal, suppression, goal-setting).

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	Goal-difficulty	Goal-specificity	Reappraisal	Suppression
G1DiffI	0.940	0.275	-0.031	-0.314
G1DiffS	0.878	0.023	0.095	-0.234
G2DiffS	0.489	0.101	0.063	-0.057
G2DiffI	0.506	0.131	0.040	-0.019
G1Spec	0.257	0.873	-0.196	-0.174
G2Spec	0.171	-0.124	0.067	0.115
Reapp1	0.052	-0.123	0.721	-0.134
Reapp2	-0.014	0.023	0.398	0.055
Reapp3	0.124	-0.074	0.543	0.031
Reapp4	0.035	-0.184	0.668	-0.030
Reapp5	-0.069	-0.229	0.779	-0.020
Reapp6	0.057	-0.094	0.499	-0.106
Suppr1	-0.054	0.01	-0.007	0.300
Suppr2	0.105	0.07	0.047	0.118
Suppr3	-0.163	-0.057	-0.029	0.572
Suppr4	-0.214	-0.237	-0.057	0.911

Table A10.15.iv. Estimation of the inner model (reappraisal, suppression and goal-setting).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Goal-difficulty	0.085	Small	.557	.030
Goal-specificity	0.131	Medium	.776	.022

Table A10.15.v. Statistical results for Path Coefficients (reappraisal, suppression, goal-setting).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Goal-difficulty	0.010	0.037	0.270	0.270	-.519; .539	.003	Negligible
Reappraisal → Goal-specificity	-0.266	0.907	0.293	0.293	-.840; .308	.067	Small
Suppression → Goal-difficulty	-0.290	1.03	0.282	0.282	-.843; .260	.064	Small
Suppression → Goal-specificity	-0.267	0.858	0.311	0.311	-.877; .343	.101	Small

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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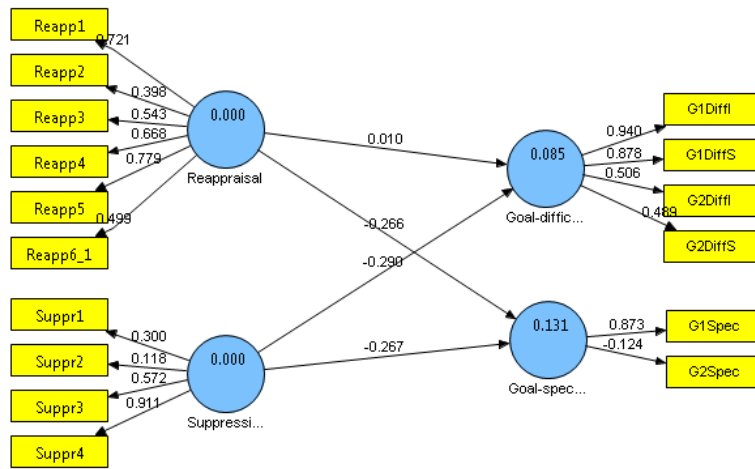


Figure A10.15.ii. Original PLS output for model investigating the direct effects of reappraisal and suppression on goal-setting.

Appendix 10.16: Model investigating the direct effects of Emotion Regulation on Actions

The analysis presented in this appendix considers the direct effect of reappraisal and suppression on actions, in the absence of any mediating variables. Table A10.16.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). Overall, the measurement model was somewhat problematic, with all AVEs lower than ideal, and two of the composite reliabilities suboptimal. Each of the latent variables had an at least one factor loading that was low. Discriminant validity was largely evident with the Fornell-Larcker criterion being met (see Table A10.16.ii). The cross-loadings largely demonstrated discriminant validity except for the second indicator for suppression, which was due to the low loading on its own factor rather than particularly high loadings on any other factor (see Table A10.16.iii).

Table A10.16.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (reappraisal, suppression, actions).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Reappraisal	Reapp1	0.552	0.064	0.777	0.392
	Reapp2	0.853	0.474		
	Reapp3	0.763	0.342		
	Reapp4	0.252	0.038		
	Reapp5	0.490	0.105		
	Reapp6	0.658	0.363		
Suppression	Suppr1	0.518	0.517	0.562	0.296
	Suppr2	0.035	-0.636		
	Suppr3	0.634	0.556		
	Suppr4	0.715	0.563		
Actions	G1Actions	0.975	1.053	0.531	0.481
	G2Actions	0.110	-0.237		

Table A10.16.ii. Average Variance Extracted and correlations between constructs (reappraisal, suppression, actions).

	1.	2.	3.
1. Actions	0.694		
2. Reappraisal	0.293	0.626	
3. Suppression	-0.241	-0.027	0.544

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

The problems with the measurement model suggest that the interpretation of the structural model may be problematic. However, for completeness, these findings are presented below. Table A10.16.iv demonstrates that reappraisal and suppression combined explained 33.8% of the variance in planning, which is a large effect. Examining the path coefficients (Table A10.16.v) indicates neither of the paths from reappraisal or suppression to planning reached significance, which is likely due to the large standard errors. However the effect size estimates indicated that suppression had a large effect on planning, while reappraisal had a small-medium effect.

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Table A10.16.iii. Cross-loadings for measurement model (reappraisal, suppression, actions).

	Actions	Reappraisal	Suppression
G1Action	0.975	0.260	-0.224
G2Action	0.110	-0.082	0.021
Reapp1	0.039	0.552	-0.182
Reapp2	0.284	0.853	0.018
Reapp3	0.204	0.763	-0.010
Reapp4	0.023	0.252	0.008
Reapp5	0.063	0.490	-0.051
Reapp6	0.217	0.658	-0.043
Suppr1	-0.096	0.074	0.518
Suppr2	0.118	0.112	0.035
Suppr3	-0.103	-0.021	0.634
Suppr4	-0.105	0.030	0.715

Table A10.16.iv. Estimation of the inner model (reappraisal, suppression and actions).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Actions	0.14	Medium	.513	.062

Table A10.16.v. Statistical results for Path Coefficients (reappraisal, suppression, actions).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Actions	0.287	1.03	0.277	0.277	-.256; .830	.097	Small
Suppression → Actions	-0.233	0.848	0.275	0.275	-.772; .306	.053	Small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

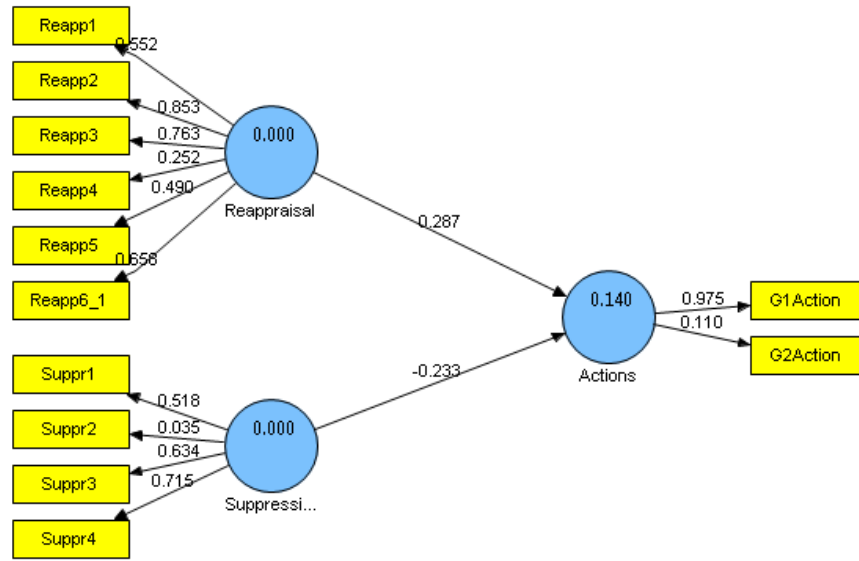


Figure A10.16.ii. Original PLS output for model investigating the direct effects of reappraisal and suppression on actions.

Appendix 10.17: Model investigating the direct effects of Goal-orientations on Problem-focused coping

The analysis presented in this appendix considers the direct effects of goal-orientations on problem-focused coping, in the absence of any mediating variables. Table A10.17.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). The composite reliabilities for the three of the four variables were above the recommended level of 0.6, with the performance avoid measure slightly below. The AVE was above .5 for both approach goals, but was slightly below this for performance avoid and for problem-focused coping. Both indicators for mastery approach loaded highly, but for the other two goal orientations, one of the two indicators loaded highly, while the second was suboptimal. Three of the five indicators for problem-focused coping were above 0.7, while the other two loaded suboptimally. Discriminant validity was evident in the measurement. The Fornell-Larcker criterion was met as all of the correlations between latent variable pairs are lower than the square root of each variables AVE (see Table A10.17.ii). Furthermore, looking at the cross-loadings, (see Table A10.17.iii), all indicators load most highly on their own latent variable, except for the Restraint Cope indicator for problem-focused coping, although this was likely due to the exceptionally low indicator loading on its own latent variable.

Table A10.17.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (goal-orientations, problem-focused coping).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Mastery approach	G1MAGO	0.818	0.602	0.806	0.675
	G2MAGO	0.826	0.614		
Performance Approach	G1PAGO	0.288	0.267	0.613	0.506
	G2PAGO	0.964	0.958		
Performance Avoid	G1PAvGO	0.199	0.253	0.571	0.488
	G2PAvGO	0.968	0.981		
Problem-Focused Coping	ActiveCope	0.877	0.474	0.745	0.433
	InstSocSupp	0.341	0.066		
	PlanCope	0.734	0.250		
	ResCope	0.068	-0.286		
	SupprCompAct	0.858	0.463		

Table A10.17.ii. Average Variance Extracted and correlations between constructs (goal-orientations, problem-focused coping).

	1.	2.	3.	4.
1. Mastery Approach	0.822			
2. Performance Approach	-0.236	0.711		
3. Performance Avoid	-0.054	-0.197	0.699	
4. Problem-focused coping	-0.180	0.221	0.159	0.658

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Although there were some issues with the measurement model, the structural model was interpreted cautiously for completeness. Table A10.17.iv demonstrates that goal orientations explained 10.4% of the variance in problem-focused coping, which is a medium effect. However, examining the path coefficients (Table A10.17.v) indicates that none of the three individual paths reached significance, although the path from performance avoid to problem-focused coping was small in nature.

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Table A10.17.iii. Cross-loadings for measurement model (goal-orientations, problem-focused coping).

	Mastery Approach	Performance Approach	Performance Avoid	Problem-focused coping
G1MAGO	0.818	-0.074	-0.053	-0.147
G2MAGO	0.826	-0.311	-0.036	-0.150
G1PAGO	-0.019	0.288	-0.079	0.060
G2PAGO	-0.241	0.964	-0.183	0.214
G1PAvGO	-0.072	-0.026	0.199	0.039
G2PAvGO	-0.037	-0.194	0.968	0.152
ActiveCope	-0.144	0.22	0.080	0.877
InstSocSupp	0.025	0.184	-0.142	0.341
PlanCope	-0.009	0.069	0.136	0.734
ResCope	0.042	-0.005	-0.224	0.068
SupprCompAct	-0.215	0.184	0.071	0.858

Table A10.17.iv. Estimation of the inner model (goal orientations and problem-focused coping).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Problem-focused coping	0.104	Medium	.498	.064

Table A10.17.v. Statistical results for Path Coefficients (goal-orientations, problem-focused coping).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Mastery approach → Problem-focused coping	-0.114	0.591	0.194	0.194	-.494; .266	.016	Very small
Performance approach → Problem-focused coping	0.233	1.271	0.183	0.183	-.126; .592	-.016	Negligible
Performance avoid → Problem-focused coping	0.199	0.803	0.248	0.248	-.287; .685	.044	Small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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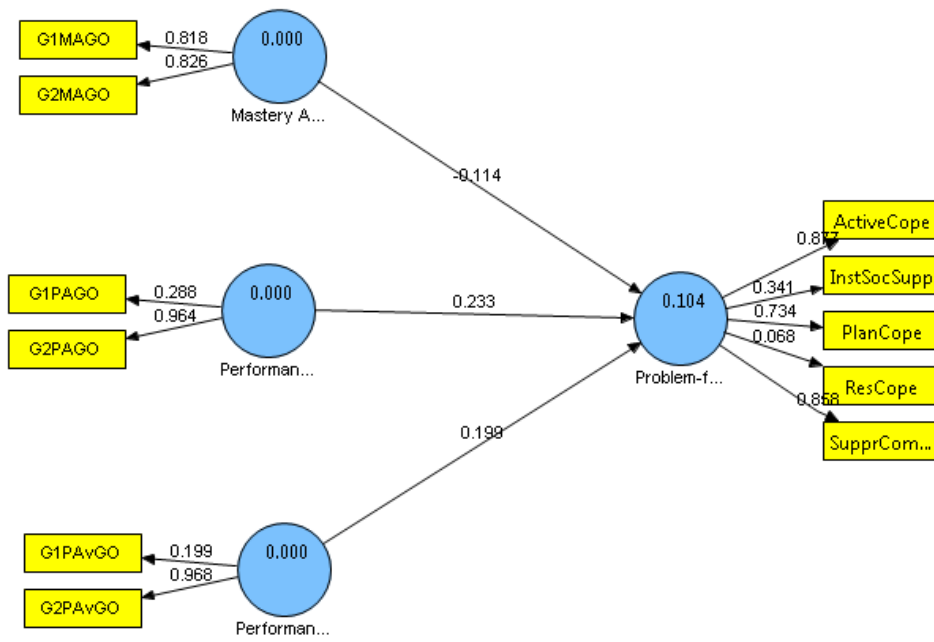


Figure A10.17.i. Original PLS output for model investigating the direct effects of goal-orientations on problem-focused coping.

Appendix 10.18: Model investigating the direct effects of Anticipated Emotions on Actions

The analysis presented in this appendix considers the direct effect of anticipated emotions on actions taken towards one's goals, in the absence of any mediating variables. Table A10.18.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). The AVE and composite reliabilities for positive anticipated emotions and actions were above the recommended figure. Both outer loadings were high for the Actions latent variable. Four of the six indicators for anticipated positive emotions were above the recommended level of 0.7, but two (pride and satisfaction) loaded suboptimally. The measurement model for negative anticipated emotions was quite problematic; it demonstrated both a low AVE and low composite reliability. This was likely due to three of its indicators (depression, disappointment and sadness) loading negatively, and none of the other six indicators loading above the recommended level.

The Fornell-Larcker criterion was met for actions and positive anticipated emotions, but not for negative anticipated emotions as its correlation with actions was higher than the square root of its AVE (see Table A10.18.ii). Similarly, all of the indicators for actions and positive anticipated emotions loaded most highly on their own latent variable. However, the negative loadings on some of the negative anticipated emotions latent variable caused problems in determining the discriminant validity of this construct (see Table A10.18.iii).

Despite the issues with the measurement of negative anticipated emotions, the structural model was interpreted cautiously, for the sake of completeness. Table A10.18.iv demonstrates that both types of anticipated emotions combined explained 13.0% of the variance in taking actions towards one's goal, which is a medium effect. However, neither of the individual path coefficients reached significance (Table A10.18.v), although the effect size estimations suggest that anticipated negative emotions had a small effect on actions. Given the problems with the measurement model for this variable, this finding should be interpreted with caution.

Table A10.18.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (anticipated emotions, actions).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Positive anticipated emotions	Delight	0.937	0.493	0.871	0.549
	Excitement	0.858	0.397		
	Gladness	0.802	0.169		
	Happiness	0.805	0.067		
	Pride	0.469	-0.162		
	Satisfaction	0.411	0.203		
Negative anticipated emotions	Anger	0.343	0.132	0.279	0.102
	Depression	-0.266	-0.718		
	Disappointment	-0.040	-0.495		
	Discomfort	0.352	0.200		
	Fear	0.156	0.210		
	Frustration	0.505	0.574		
	Guilt	0.561	0.476		
	Sadness	-0.158	-0.287		
	Shame	0.161	0.138		
	Worry	0.249	0.065		
Actions	G1Action	0.840	0.650	0.798	0.664
	G2Action	0.790	0.575		

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Table A10.18.ii. Average Variance Extracted and correlations between constructs (anticipated emotions, actions).

	1.	2.	3.
1. Actions	0.815		
2. Negative anticipated emotions	0.349	0.319	
3. Positive anticipated emotions	0.148	0.164	0.741

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A10.18.iii. Cross-loadings for measurement model (anticipated emotions, actions).

	Actions	Negative Anticipated Emotions	Positive Anticipated Emotions
G1Action	0.840	0.298	0.136
G2Action	0.790	0.269	0.104
Anger	0.030	0.343	0.211
Depression	-0.164	-0.266	0.178
Disappointment	-0.113	-0.040	-0.106
Discomfort	0.046	0.352	0.122
Fear	0.048	0.156	0.003
Frustration	0.131	0.505	0.101
Guilt	0.109	0.561	0.284
Sadness	-0.066	-0.158	0.141
Shame	0.032	0.161	0.304
Worry	0.015	0.249	-0.113
Delight	0.146	0.222	0.937
Excitement	0.117	0.172	0.858
Gladness	0.050	0.027	0.802
Happiness	0.020	0.125	0.805
Pride	-0.048	0.183	0.469
Satisfaction	0.060	0.017	0.411

Table A10.18.iv. Estimation of the inner model (anticipated emotions, actions).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Actions	.130	Medium	.452	.114

Table A10.18.v. Statistical results for Path Coefficients (anticipated emotions, actions).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Anticipated positive emotions → Actions	0.094	0.364	0.257	0.257	-.410; .694	.011	Very small
Anticipated negative emotions → Actions	0.333	1.02	0.328	0.328	-.310; .976	.038	Small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

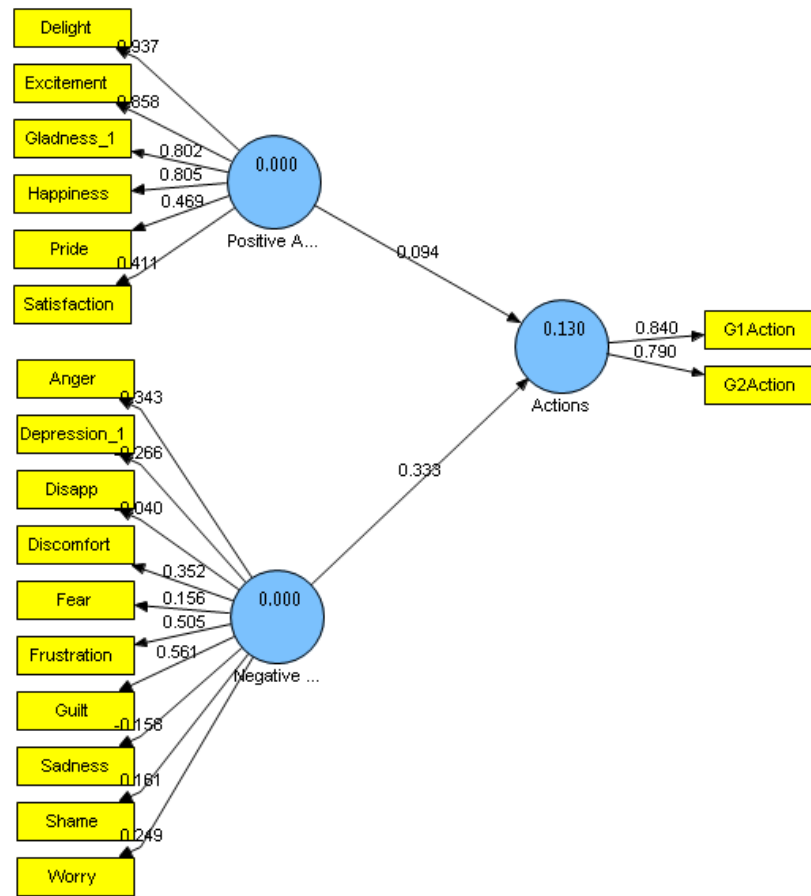


Figure A10.18.i. Original PLS output for model investigating the direct effect of anticipated emotions on actions.

Appendix 10.19: Model investigating the direct effects of Self-efficacy on Problem-focused Coping

The analysis presented in this appendix considers the direct effect of self-efficacy (entrepreneurial and creative) on problem-focused coping, in the absence of any mediating variables. Table A10.19.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). The AVE and composite reliabilities for the three variables were all high and above the recommended criteria. All of the indicators for entrepreneurial self-efficacy loaded highly on their latent variable. Two of the three indicators for creative self-efficacy were above the recommended level of 0.7, and the third was marginally below this. Similarly, three of the five indicators for problem focused coping were above 0.7, but the other two were between 0.55 and 0.60. Discriminant validity was evident in the measurement. The Fornell-Larcker criterion was met as all of the correlations between latent variable pairs are lower than the square root of each variables AVE (see Table A10.19.ii). Furthermore, looking at the cross-loadings, (see Table A10.19.iii), all indicators load most highly on their own latent variable.

Table A10.19.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (self-efficacy, problem-focused coping).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
ESE	ESE1	0.725	0.213	0.890	0.576
	ESE2	0.793	0.229		
	ESE3	0.759	0.292		
	ESE4	0.827	0.170		
	ESE5	0.720	0.278		
	ESE6	0.720	0.141		
CSE	CSE1	0.688	0.270	0.830	0.622
	CSE2	0.905	0.601		
	CSE3	0.758	0.357		
Problem-Focused Coping	ActiveCope	0.822	0.251	0.843	0.525
	InstSocSupp	0.584	0.227		
	PlanCope	0.839	0.407		
	ResCope	0.541	0.194		
	SupprCompAct	0.780	0.275		

Table A10.19.ii. Average Variance Extracted and correlations between constructs (self-efficacy, problem-focused coping).

	1.	2.	3.
1. Creative Self-efficacy	0.789		
2. Entrepreneurial Self-efficacy	0.543	0.759	
3. Problem-Focused Coping	0.273	0.511	0.725

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.19.iii. Cross-loadings for measurement model (self-efficacy, problem-focused coping).

	CSE	ESE	PFC
CSE1	0.688	0.442	0.131
CSE2	0.905	0.493	0.292
CSE3	0.758	0.359	0.173
ESE1	0.700	0.725	0.352
ESE2	0.337	0.793	0.378
ESE3	0.335	0.759	0.483
ESE4	0.394	0.827	0.282
ESE5	0.367	0.720	0.460
ESE6	0.356	0.720	0.234
ActiveCope	0.074	0.324	0.822
InstSocSupp	0.219	0.296	0.584
PlanCope	0.311	0.529	0.839
ResCope	0.059	0.251	0.541
SupprCompAct	0.241	0.358	0.780

Moving to examine the structural model, Table A10.5.iv demonstrates that the two forms of domain self-efficacy combined explained 26.1% of the variance in problem-focused coping, which is a large effect. Examining the path coefficients (Table A10.19.v) indicates that entrepreneurial self-efficacy had a significant and positive effect on problem-focused coping which was medium in magnitude, while the effect of creative self-efficacy was negligible.

Table A10.19.iv. Estimation of the inner model (self-efficacy and problem-focused coping).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Problem-focused coping	0.261	Large	.452	.119

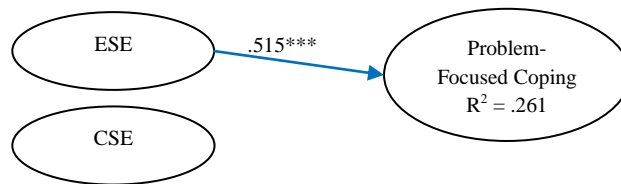


Figure A10.19.i. Results of Partial Least Squares analysis for the model investigating the direct effects of self-efficacy on problem-focused coping. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; dashed lined indicate non-significant paths).

Table A10.19.v. Statistical results for Path Coefficients (self-efficacy, problem-focused coping).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial self-efficacy → Problem-focused coping	0.515***	3.894	0.132	0.132	.256; .774	.222	Medium
Creative self-efficacy → Problem-focused coping	-0.007	0.046	0.150	0.150	-.301; .287	.000	Negligible

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

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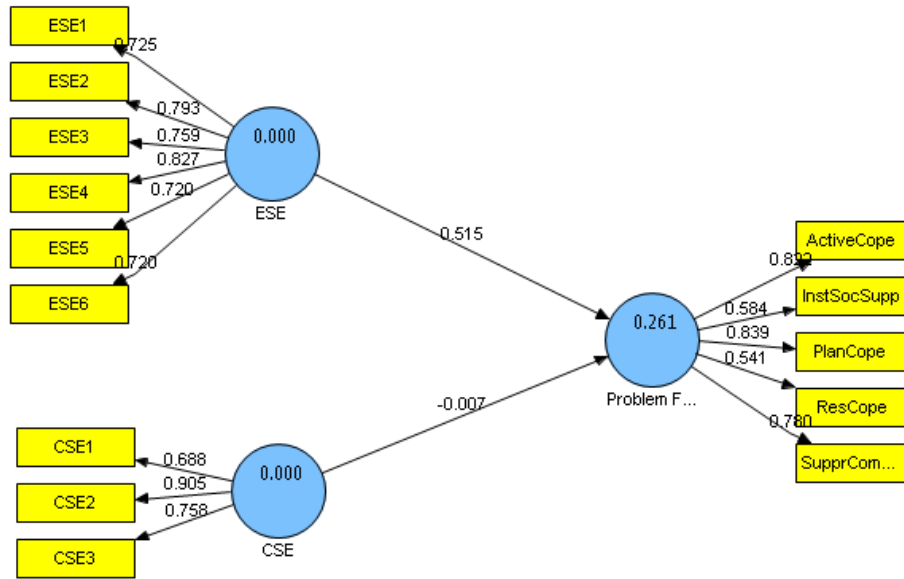


Figure A10.19.ii. Original PLS output for model investigating the direct effects of self-efficacy on problem-focused coping.

Appendix 10.20: Model investigating the direct effects of Entrepreneurial Orientations and Personal Initiative on Problem-focused Coping

The focus of the analysis in this section relates to the direct effects of entrepreneurial orientations and personal initiative on problem-focused coping. Firstly, looking at the measurement model (see Table A10.20.i), the composite reliability for the three variables are all above the recommended level of 0.6. The AVE for problem-focused coping is above 0.5, but for personal initiative is a little below this at 0.462. However, the AVE for entrepreneurial orientations is quite low at 0.262. This is likely due to the fact that a number of the indicators for entrepreneurial orientations load suboptimally on this latent factor. In relation to personal initiative, two of the indicators loaded above 0.7, but four others are only slightly below this, with the final indicator loading at .522. Finally, three of the five indicators for problem-focused coping load highly, but the other two are suboptimal.

The variables in the model largely displayed discriminant validity; the square root of the AVE for each latent variable was higher than any of their intercorrelations (see Table A10.20.ii), and the indicators for each LV loaded more highly on their own LV than on any other (see Table A10.20.iii). The only exception is the LO indicator. However, this is due to an exceptionally low loadings on its own variable (entrepreneurial orientations), rather than a particularly high loading on any other variable.

Despite the minor issues with the measurement model, it was deemed relevant to explore the results of the structural model. Entrepreneurial orientations and personal initiative combined had a large effect on problem-focused coping, predicting 29.7% of the variance. The Q² estimations indicated that the model had predictive relevance (see Table A10.20.iv). Looking at the significance of the individual paths (see Table A10.20.v and Figure A10.20.i), personal initiative had a significant positive effect on problem-focused coping, which was medium in magnitude, while entrepreneurial orientations had a small, but non-significant effect.

Table A10.20.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.794	0.596	0.635	0.262
	AutO	0.427	0.096		
	CAGg	0.644	0.399		
	IO	0.093	-0.236		
	LO	0.415	0.354		
	RTrs	0.405	0.255		
Personal Initiative	PI1	0.692	0.196	0.856	0.462
	PI2	0.755	0.203		
	PI3	0.650	0.18		
	PI4	0.680	0.171		
	PI5	0.683	0.264		
	PI6	0.748	0.307		
	PI7	0.522	0.13		
Problem-Focused Coping	ActiveCope	0.864	0.333	0.841	0.525
	InstSocSupp	0.559	0.201		
	PlanCope	0.816	0.332		
	ResCope	0.485	0.134		
	SupprCompAct	0.818	0.323		

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Table A10.20.ii Latent variable correlations (entrepreneurial orientations, personal initiative and problem-focused coping).

	1.	2.	3.
1. Entrepreneurial Orientations	0.512		
2. Personal Initiative	0.434	0.680	
3. Problem-focused coping	0.357	0.526	0.725

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A10.20.iii Cross loadings of indicators (entrepreneurial orientations, personal initiative and problem focused coping).

	EO	PI	PFC
AOtot	0.794	0.349	0.276
AutOTot	0.427	0.305	0.045
CAgg	0.644	0.294	0.185
IOTot	0.093	0.110	-0.109
LOTot	0.415	0.116	0.164
RTTotRS	0.405	0.250	0.118
PI1	0.291	0.692	0.320
PI2	0.364	0.755	0.332
PI3	0.280	0.650	0.295
PI4	0.225	0.680	0.280
PI5	0.367	0.683	0.431
PI6	0.290	0.748	0.501
PI7	0.215	0.522	0.212
ActiveCope	0.325	0.450	0.864
InstSocSupp	0.295	0.238	0.559
PlanCope	0.244	0.478	0.816
ResCope	0.064	0.204	0.485
SupprCompAct	0.309	0.440	0.818

Table A10.20.iv. Estimation of the structural model (entrepreneurial orientations, personal initiative and problem-focused coping).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Problem-focused coping	0.297	Large	.629	.207

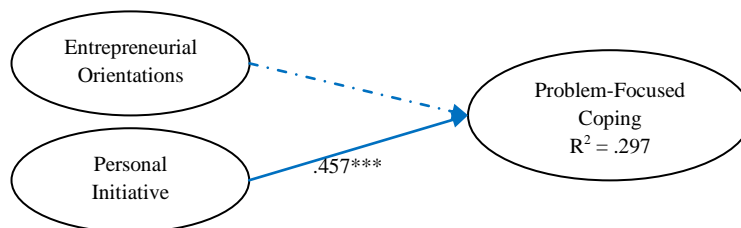


Figure A10.20.i. Results of Partial Least Squares analysis for the model investigating the relationships between entrepreneurial orientations, personal initiative, and problem-focused coping. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; dashed lined indicate non-significant paths).

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Table A10.20.v. Statistical results for Path Coefficients (entrepreneurial orientations, personal initiative, and problem-focused coping).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → problem-focused coping	0.159	0.856	0.186	0.186	-.206; .524	.027	Small
Personal initiative → problem-focused coping	0.457***	4.337	0.105	0.105	.251; .663	.229	Medium

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

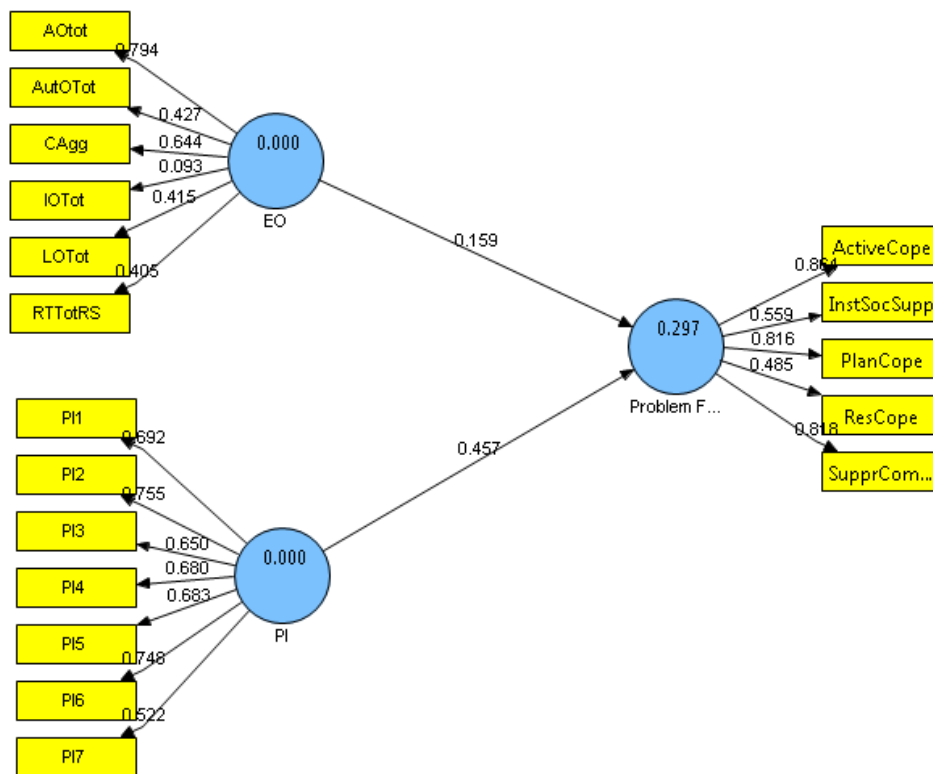


Figure A10.20.ii. Original PLS output for the model examining the direct effects of entrepreneurial orientations and personal initiative on problem-focused coping.

Appendix 10.21: Model investigating the direct effects of Entrepreneurial Orientations and Personal Initiative on Goal-Directed Emotions

The focus of the analysis in this section relates to the direct effects of entrepreneurial orientations and personal initiative on goal-directed emotions. Firstly, looking at the measurement model (see Table A10.21.i), the composite reliability for the four variables are all above the recommended level of 0.6. The AVEs for both positive and negative anticipated emotions are above 0.5, but for personal initiative is a little below this at 0.447. However, the AVE for entrepreneurial orientations is quite low at 0.313. This is likely due to the fact that a number of the indicators for entrepreneurial orientations load suboptimally on this latent factor. In relation to personal initiative, three of the indicators loaded above 0.7, but two others were only slightly below this, and the final two indicators loaded between 450 and .555. For positive anticipated emotions, four of the six indicators loaded highly, while the other two were somewhat lower than the recommended level. Finally, for negative anticipated emotions, eight of the indicators loaded above 0.7, with the other two below this. The variables in the model displayed discriminant validity; the square root of the AVE for each latent variable was higher than any of their intercorrelations (see Table A10.21.ii), and the indicators for each LV loaded more highly on their own LV than on any other (see Table A10.21.iii).

Table A10.21.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs.

Construct	Measure	Factor Loadings	Weights of measures	Composite scale Reliability	Average Variance Extracted (AVE)
Entrepreneurial Orientations	AO	0.653	0.434	0.725	0.313
	AutO	0.471	0.085		
	CAGg	0.698	0.458		
	IO	0.531	0.258		
	LO	0.548	0.283		
	RTrs	0.396	0.164		
Personal Initiative	PI1	0.555	0.020	0.846	0.447
	PI2	0.710	0.173		
	PI3	0.747	0.288		
	PI4	0.772	0.298		
	PI5	0.685	0.282		
	PI6	0.697	0.286		
	PI7	0.453	0.062		
Positive anticipated emotions	Delight	0.898	0.283	0.900	0.609
	Excitement	0.816	0.288		
	Gladness	0.860	0.206		
	Happiness	0.892	0.260		
	Pride	0.641	0.087		
	Satisfaction	0.480	0.094		
Negative anticipated emotions	Anger	0.734	0.145	0.914	0.517
	Depression	0.789	0.150		
	Disappointment	0.629	0.046		
	Discomfort	0.745	0.112		
	Fear	0.783	0.318		
	Frustration	0.584	0.020		
	Guilt	0.772	0.140		
	Sadness	0.710	0.243		
Shame	0.708	0.163			
Worry	0.705	0.008			

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Despite the minor issues with the measurement model, it was deemed relevant to explore the results of the structural model. Entrepreneurial orientations and personal initiative combined had a medium-large effect on positive anticipated emotions, predicting 23.9% of the variance, and had a small effect on negative anticipated emotions, predicting 7.5% of the variance. The Q^2 estimations indicated that the model had predictive relevance (see Table A10.21.iv). Looking at the significance of the individual paths (see Table A10.21.v and Figure A10.21.i), both personal initiative and entrepreneurial orientations had significant positive effects on positive anticipated emotions which were small in magnitude. However, the CI_{95} for the path from personal initiative to positive anticipated emotions contained zero, indicating that this result should be interpreted with caution. Neither personal initiative nor entrepreneurial orientations had a significant effect on negative anticipated emotions.

Table A10.21.ii. Latent variable correlations (entrepreneurial orientations, personal initiative and goal-directed emotions).

	1.	2.	3.	4.
1. Entrepreneurial Orientations	0.559			
2. Negative anticipated emotions	-0.011	0.719		
3. Personal Initiative	0.391	0.248	0.669	
4. Positive anticipated emotions	0.439	0.25	0.37	0.780

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

Table A10.21.iii Cross loadings of indicators (entrepreneurial orientations, personal initiative and goal-directed emotions).

	EO	Neg. Antic. emotions	PI	Pos. Antic emotions
AOtot	0.653	0.078	0.340	0.331
AutOTot	0.471	0.178	0.286	0.069
CAgg	0.698	-0.092	0.264	0.345
IOTot	0.531	-0.125	0.095	0.193
LOTot	0.548	-0.003	0.142	0.215
RTTotRS	0.396	0.095	0.208	0.126
Anger	-0.059	0.734	0.113	0.276
Depression	-0.001	0.789	0.142	0.217
Disappointment	-0.165	0.629	-0.027	-0.069
Discomfort	-0.027	0.745	0.095	0.160
Fear	-0.053	0.783	0.280	0.024
Frustration	-0.065	0.584	-0.008	0.132
Guilt	0.155	0.772	0.200	0.342
Sadness	-0.044	0.710	0.213	0.216
Shame	0.104	0.708	0.200	0.323
Worry	-0.120	0.705	-0.043	-0.087
PI1	0.271	-0.091	0.555	0.090
PI2	0.384	0.069	0.710	0.207
PI3	0.191	0.249	0.747	0.254
PI4	0.244	0.233	0.772	0.279
PI5	0.362	0.157	0.685	0.307
PI6	0.262	0.207	0.697	0.279
PI7	0.236	-0.111	0.453	0.164
Delight	0.452	0.149	0.327	0.898
Excitement	0.479	0.174	0.305	0.816
Gladness	0.323	0.227	0.247	0.860
Happiness	0.354	0.241	0.391	0.892
Pride	0.061	0.313	0.218	0.641
Satisfaction	0.090	0.225	0.197	0.480

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Table A10.21.iv. Estimation of the structural model (entrepreneurial orientations, personal initiative and goal-directed emotions).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Positive anticipated emotions	0.239	Medium-large	.589	.415
Negative anticipated emotions	0.075	Small	.589	.046

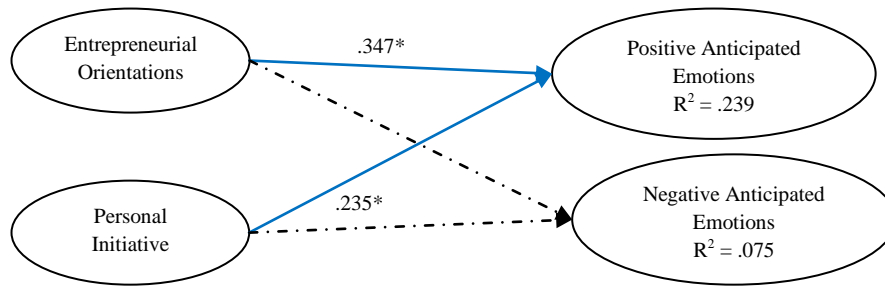


Figure A10.21.i. Results of Partial Least Squares analysis for the model investigating the relationships between entrepreneurial orientations, personal initiative, and goal-directed emotions. (***) $p < .001$; (**) $p < .01$; (*) $p < .05$; dashed lined indicate non-significant paths).

Table A10.21.v. Statistical results for Path Coefficients (entrepreneurial orientations, personal initiative, and goal-directed emotions).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Entrepreneurial orientations → positive anticipated emotions	0.347*	2.41	0.144	0.144	.065; .629	.134	Small-medium
Entrepreneurial orientations → negative anticipated emotions	-0.127	0.487	0.261	0.261	-.639; .385	-.004	Negligible
Personal initiative → positive anticipated emotions	0.235*	1.66	0.142	0.142	-.043; .513	.035	Small
Personal initiative → negative anticipated emotions	0.298	1.00	0.297	0.297	-.284; .880	.008	Negligible

* $p < .05$, ** $p < .001$; *** $p < .0001$

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$

where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

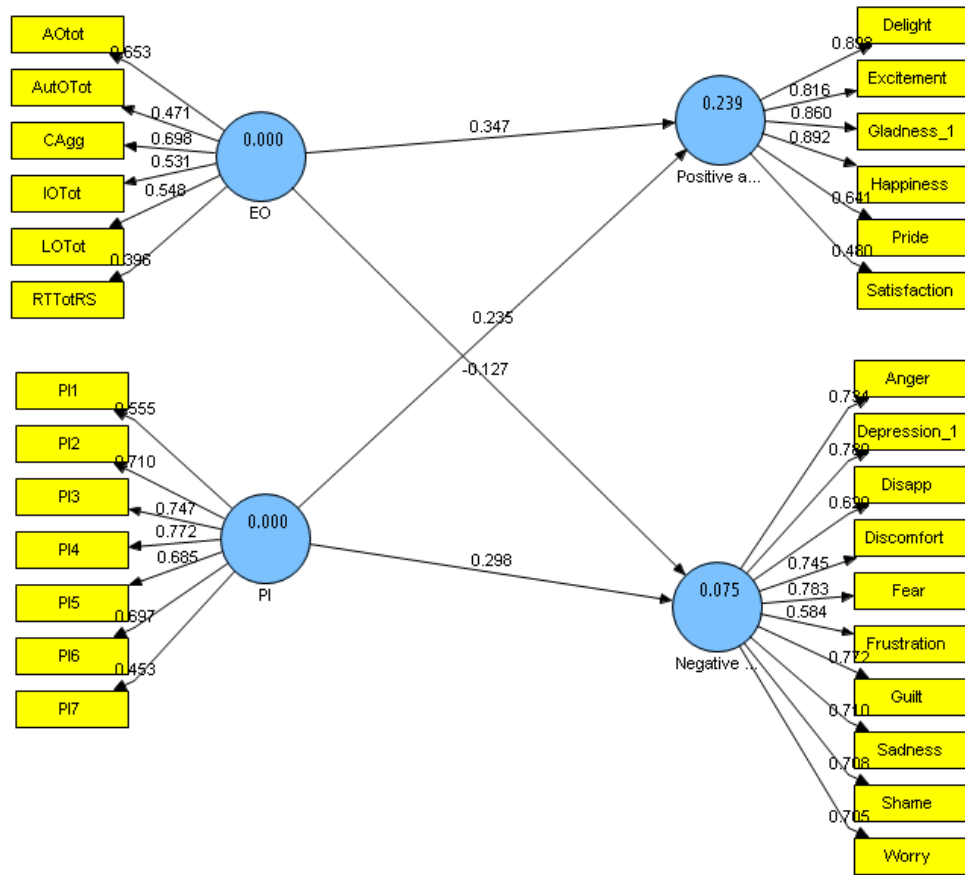


Figure A10.21.ii. Original PLS output for the model examining the direct effects of entrepreneurial orientations and personal initiative on goal-directed emotions.

Appendix 10.22: Model investigating the direct effects of Emotion Regulation on Work Engagement

The analysis presented in this appendix considers the direct effect of reappraisal and suppression on work engagement, in the absence of any mediating variables. Table A10.22.i outlines the factor loadings, weights, composite scale reliability, and Average Variance Extracted (AVE). Work engagement displayed a high AVE and high composite reliability. Its three indicators loaded highly. The AVEs for both reappraisal and suppression were a little lower than the recommended level, but the composite reliability for both were high. Reappraisal had two indicators that loaded above the recommended level of 0.7, a further two loaded above 0.6 and the final two loaded above 0.5. For suppression, three of the indicators loaded highly, but the fourth had a very low loading. Discriminant validity was evident with the Fornell-Larcker criterion being met (see Table A10.22.ii). The cross-loadings also demonstrated discriminant validity (see Table A10.22.iii).

Table A10.22.i. Factor loadings, Weights, Composite Scale Reliability, and Average Variance Extracted (AVE) to assess reliability of constructs (reappraisal, suppression, work engagement).

Construct	Measure	Factor Loadings	Weights of measures	Composite Reliability	AVE
Reappraisal	Reapp1	0.700	0.224	0.804	0.409
	Reapp2	0.665	0.254		
	Reapp3	0.629	0.198		
	Reapp4	0.528	0.288		
	Reapp5	0.557	0.137		
	Reapp6	0.732	0.438		
Suppression	Suppr1	0.800	0.516	0.742	0.457
	Suppr2	0.742	0.276		
	Suppr3	0.777	0.539		
	Suppr4	0.181	-0.201		
Work Engagement	Absorption	0.895	0.353	0.915	0.782
	Dedication	0.812	0.311		
	Vigor	0.942	0.458		

Table A10.22.ii. Average Variance Extracted and correlations between constructs (reappraisal, suppression, work engagement).

	1.	2.	3.
1. Reappraisal	0.640		
2. Suppression	0.017	0.676	
3. Work Engagement	0.352	0.136	0.884

(Note: Bold numbers on the diagonal show the square root of the AVE; Numbers below the diagonal represent construct correlations)

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Table A10.22.iii. Cross-loadings for measurement model (reappraisal, suppression, work engagement).

	Reappraisal	Suppression	Work Engagement
Reapp1	0.700	-0.120	0.176
Reapp2	0.665	0.058	0.200
Reapp3	0.629	0.066	0.156
Reapp4	0.528	0.020	0.227
Reapp5	0.557	0.039	0.108
Reapp6	0.732	0.012	0.345
Suppr1	0.026	0.800	0.104
Suppr2	0.047	0.742	0.056
Suppr3	-0.034	0.777	0.109
Suppr4	-0.048	0.181	-0.041
Absorption	0.247	0.221	0.895
Dedication	0.302	-0.030	0.812
Vigor	0.373	0.147	0.942

Moving to examine the structural model, Table A10.22.iv demonstrates that reappraisal and suppression combined explained 14.1% of the variance in engagement, which is a medium effect. Examining the path coefficients (Table A10.22.v) indicates reappraisal had a significant positive effect on work engagement, which was small-medium in size. Suppression did not have a significant effect.

Table A10.22.iv. Estimation of the inner model (reappraisal, suppression and work engagement).

	R ²	R ² effect size	Q ² Cross validated commonality	Q ² Cross validated redundancy
Work Engagement	.141	Medium	.832	.169

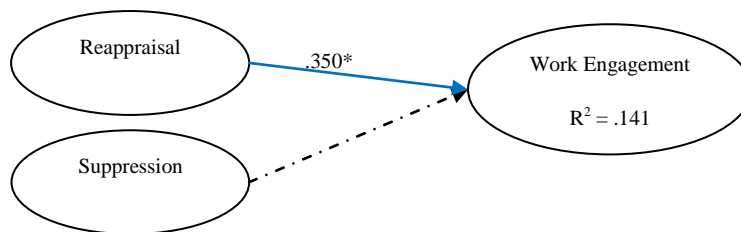


Figure A10.22.i. Results of Partial Least Squares analysis for the model investigating the relationships between emotion regulation and work engagement (**p < .001; *p < .01; * p < .05; dashed lined indicate non-significant paths).

Table A10.22.v. Statistical results for Path Coefficients (reappraisal, suppression, work engagement).

	β	t	SD	SE	CI ₉₅	f^2	f^2 effect size
Reappraisal → Work Engagement	0.350*	2.17	0.162	0.162	.032; .668	.104	Small-medium
Suppression → Work Engagement	0.130	0.624	0.208	0.208	-.278; .538	.017	Very small

* p < .05, ** p < .001; *** p < .0001

$t_{0.05, 4999} = 1.645$; $t_{0.01, 4999} = 2.576$; $t_{0.001, 4999} = 3.291$ (one-tailed)

(Lindley & Scott, 1984)

Calculating the Confidence Interval: $CI_{95} = \beta \pm t_{CV} * SE$
where $t_{CV} = 1.96$ for two-tailed 95% Confidence Interval

(Hinkle, Wiersma & Jurs, 1998)

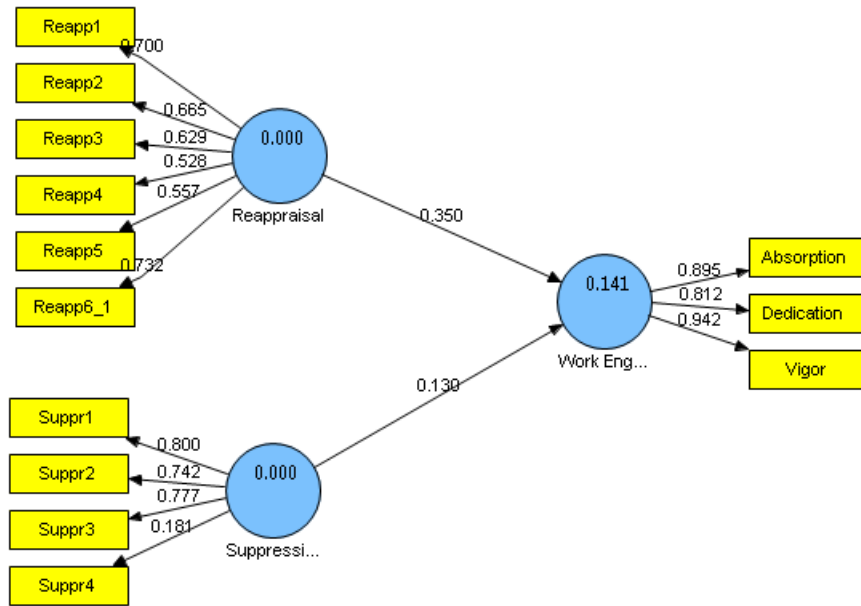


Figure A10.22.ii. Original PLS output for model investigating the direct effects of reappraisal and suppression on work engagement.